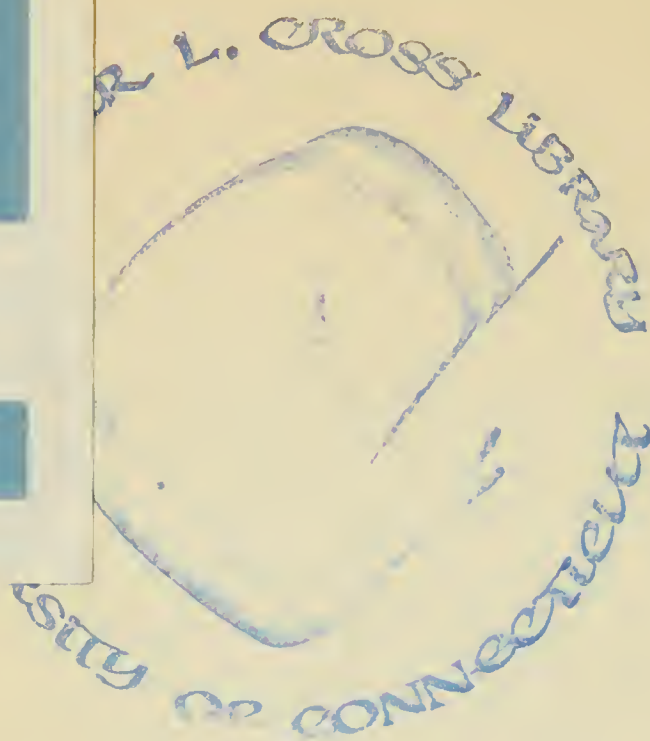


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CHARACTERISTICS OF ADOLESCENCE

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DOROTHY MACLARY SCHNELL



CHARACTERISTICS OF ADOLESCENCE

by

DOROTHY MACLARY SCHNELL

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Santa Barbara, College

Santa Barbara, California

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Dorothy M. Schnell
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FOREWORD

6/30/48
Characteristics of Adolescence by Dorothy Maclary Schnell should be of value to many groups of people. All of the material included in the charts of characteristics of adolescents at different age levels has been published elsewhere; but she has made a distinct contribution in bringing together the findings of extensive research in this field and presenting them in a simple, easily comprehended form. The careful documentation of each generalization enables one to locate the investigation upon which it was based and to read further when it is desired.

Mrs. Schnell is a home economist; but the monograph she has written is not limited at all to use by home economists. Those who are dealing with adolescents, whether as teachers, social workers, counselors, leaders of youth groups, or parents are likely to find answers to many of the problems which confront them, since acceptable solutions must in the main be based upon an understanding of the young people themselves.

Burgess
102
The author attacked this problem in the summer of 1945 when she was enrolled in a workshop which I directed at the University of Minnesota, and was attempting to devise techniques for acquainting student teachers with the characteristics of the high school pupils whom they would teach. She had found that these college seniors had a very limited knowledge and understanding of adolescents and seemed unable to plan instruction appropriate for a given age group. Her attempts to help them develop an understanding through reading the reports of some of the most significant research had been ineffective because of the technical nature of many of these reports and the fact that each one usually dealt with a very limited area. The present publication was produced in an effort to present some of the most significant and pertinent findings in a relatively brief monograph, to describe them in simple language, and in an organization which made comparisons between sexes and age groups easy.

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This monograph should provide a criterion against which to check present practices, to discover why some of them are so ineffective and why many disciplinary problems arise and antagonisms develop. It should help one to determine whether a given individual or group is normal, retarded or accelerated with respect to physical, mental, emotional, social and moral development; and it should help to provide a psychological basis for grade placement of content and selection of appropriate learning experiences. Perhaps most important of all, it should help those who deal with adolescents to understand the interests and basic drives which motivate their behavior and to learn to work in conjunction with these rather than against them.

Clara Brown Army

October 22, 1946

PREFACE

To meet the needs and interests of the learner is the major objective of true education. As a high school classroom teacher, as a supervisor of student teachers in home economics, and as a teacher-trainer in home economics, the writer has become convinced that undergraduate training does not necessarily supply enough specific, basic information about the needs and interests of the adolescent pupils, whom the young teacher will attempt to understand and instruct, to enable her (or him) truly to educate them. Likewise, prescribed units of instruction sometimes have seemed questionable in light of the accumulating facts, from various research sources, about adolescence.

With these convictions as a challenge, it has seemed wise and necessary to the writer to organize in some easily accessible and understandable way the absorbing, enlightening information about adolescence, so that both pre-service and in-service teachers might have a meaningful picture of the high school students they hope to educate. It has been hoped that such an organization might also shed light upon curriculum and procedure, either to justify or to revise and improve them.

The writer used two major source books for information about adolescence: Psychology of Adolescence, Luella Cole, Farrar and Rinehart, Inc., New York, publishers, and the Forty-third Yearbook, Part I, Adolescence, National Society for the Study of Education.

Organization of the information has been made to follow the established groups contained in adolescence: preadolescence (10-12 years of age), early adolescence (13-15 years of age), middle adolescence (16-18 years of age), and late adolescence (19-21 years of age). To aid speedy use and reference, colored divider sheets have been used to indicate the position of information concerning each age group: blue, preadolescence; red, early adolescence; green, middle adolescence; yellow, late adolescence. Information within each age-group has been arranged under developmental characteristics deemed important: physical, mental, emotional, social, and moral.

Known facts about boys and about girls have been shown by the use of two columns in which alignment of facts with common elements, but differences, has been made. Facts in common have been arranged to span the two columns. Citation to the source of the fact follows its statement. As far as possible, original sources have been given. An honest attempt has been made to reduce to meaningfulness for lay readers many technical terms used by psychologists and other research workers.

Usually, authors referred in their discussions to specific age-groups in adolescence, but if they did not, and referred only to "adolescence", facts given therein were arranged under the categories of early and middle adolescence because those age-groups seemed to mean "adolescence" to workers as well as to the public. Ages shown in graphic presentation of data often were the cue for the classification of facts.

Sometimes grades in school were referred to in describing facts; then it was necessary to compute the average age of normal school progress to determine the classification for the facts presented.

Reinforcement of the writer's first convictions that a readable organization of the known facts concerning adolescence is essential to true understanding and education has come from several sources. In writing the evaluation of the Forty-third Yearbook, Part I, Adolescence, National Society for the Study of Education, Stoddard¹ concludes that those who have an understanding of adolescence have an understanding of everyone, and that if teachers and parents had a knowledge of the facts in adolescence revealed by the research workers, everyone would begin "a better life". As a result of their study, during the past year, of the organized material, students in the writer's classes at Santa Barbara College, University of California, have expressed new understanding and confidence in their student teaching and have demonstrated unusual insight concerning placement and gradation of subject matter for high school pupils. From the experience of compiling the material herein presented, the writer, as the mother of a young adolescent daughter, has gained immeasurably in perspective and understanding, and hopes that the material may be of assistance not only to professional workers in education, but also to bewildered parents who lack time to read through imposing-looking volumes of technical information.

The writer wishes to extend gratefulness, hereby, to:

Clara M. Brown, Professor of Home Economics Education, University of Minnesota, who listened to the writer's convictions and plans for the organization and gave invaluable encouragement, advice, and vision.

Those members of the Workshop in Home Economics Education, under the direction of Miss Clara M. Brown, at the University of Minnesota's summer session, 1945, who criticized the first draft of the material and gave suggestions as to mechanics which would make the material usable.

Charlotte E. Biester, Chairman of the Home Economics Department, Santa Barbara College, University of California, for her interest, encouragement, and cooperation.

Students in the writer's classes at Santa Barbara College, University of California, who have given both inspiration and evaluation.

Mrs. M. Lorraine Moody, typist, who, by her careful attention to detail, has been of great assistance.

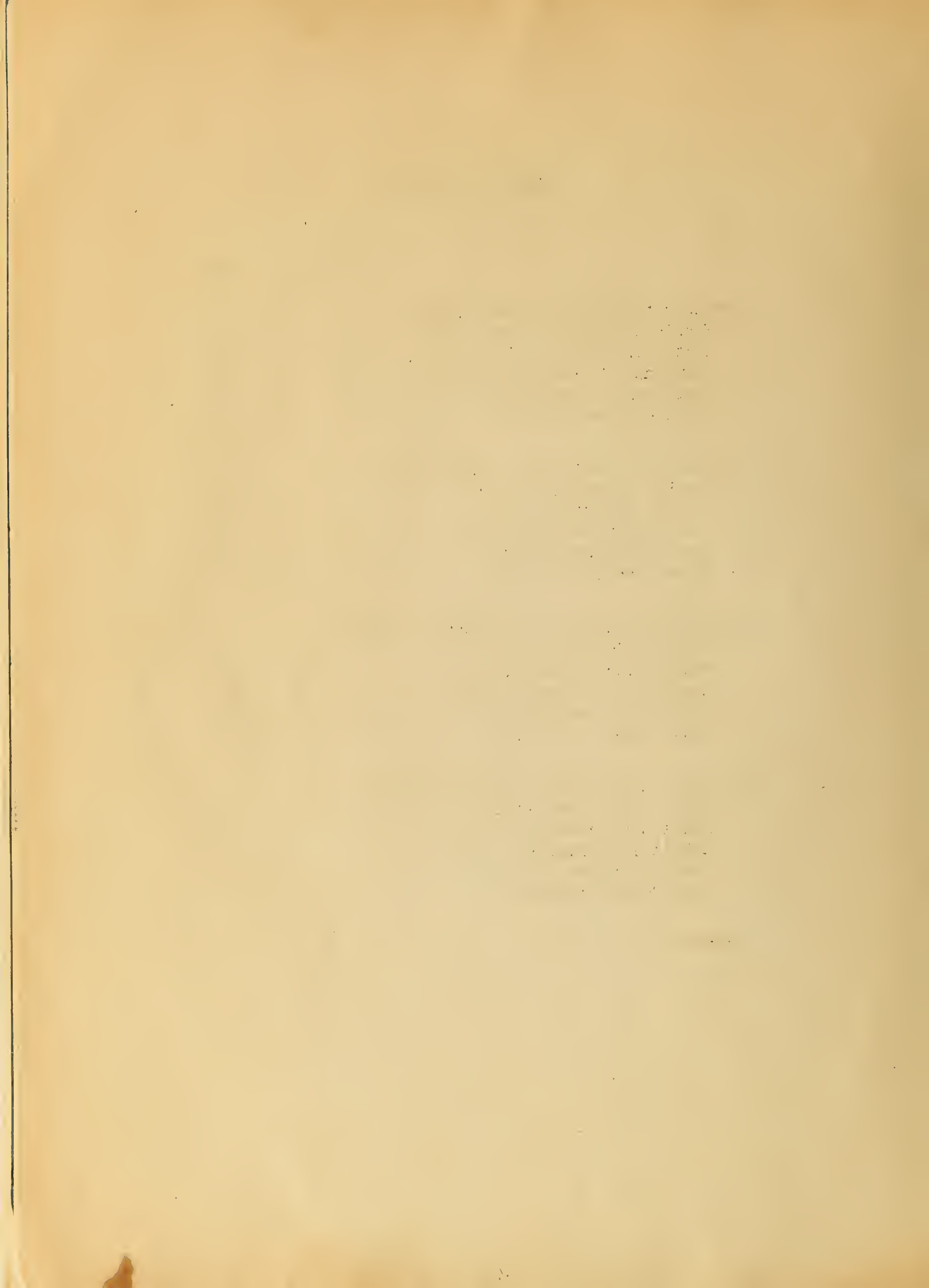
D.M.S.

Santa Barbara College
University of California
August, 1946

¹Stoddard, George D. "An Evaluation of the Yearbook", Ch. XVIII, pp. 347-354, Forty-third Yearbook, Part I, Adolescence, National Society for the Study of Education. 1944.

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CONDENSED
(10 - 12 years of age)



PHYSICAL CHARACTERISTICS

Boys	Girls
BODILY GROWTH	
Slow gains in height (17:19)	Speedy increase in height (17:19)
Small but steady gain in weight (17:20)	Gain in weight, especially between eleventh and twelfth year (17:20)
Slightly stronger than girls (43:22)	Slightly less strong than boys (43:22)
At age 12, they reach about half of the manual strength they are to show at 17½ years of age (65:105)	Mature more rapidly than boys in motor functions (65:125)
	Have more permanent teeth than boys (17:35)
	Sharp rise in blood pressure (77)
	Basal metabolic rate increases (93)
	Head approaches final adult size (17:35)
	Lungs grow in capacity (8)
	Ages of 10-15 years have the lowest death rate of all adolescent age periods (65:5)
	Early maturing children have an intense period of rapid growth and attain their adult proportions very quickly (83)
SEXUAL MATURITY	
By 12 years of age only 5% have reached sexual maturity (17:52)	Sexual maturity begins and by 12 years of age is completed for about 38% (17:52)
	Secondary sex characteristics begin to appear: development of breasts, pubic and armpit hair, light hair on upper lip and forearm, slight lowering of voice, widening of hips (17:59)

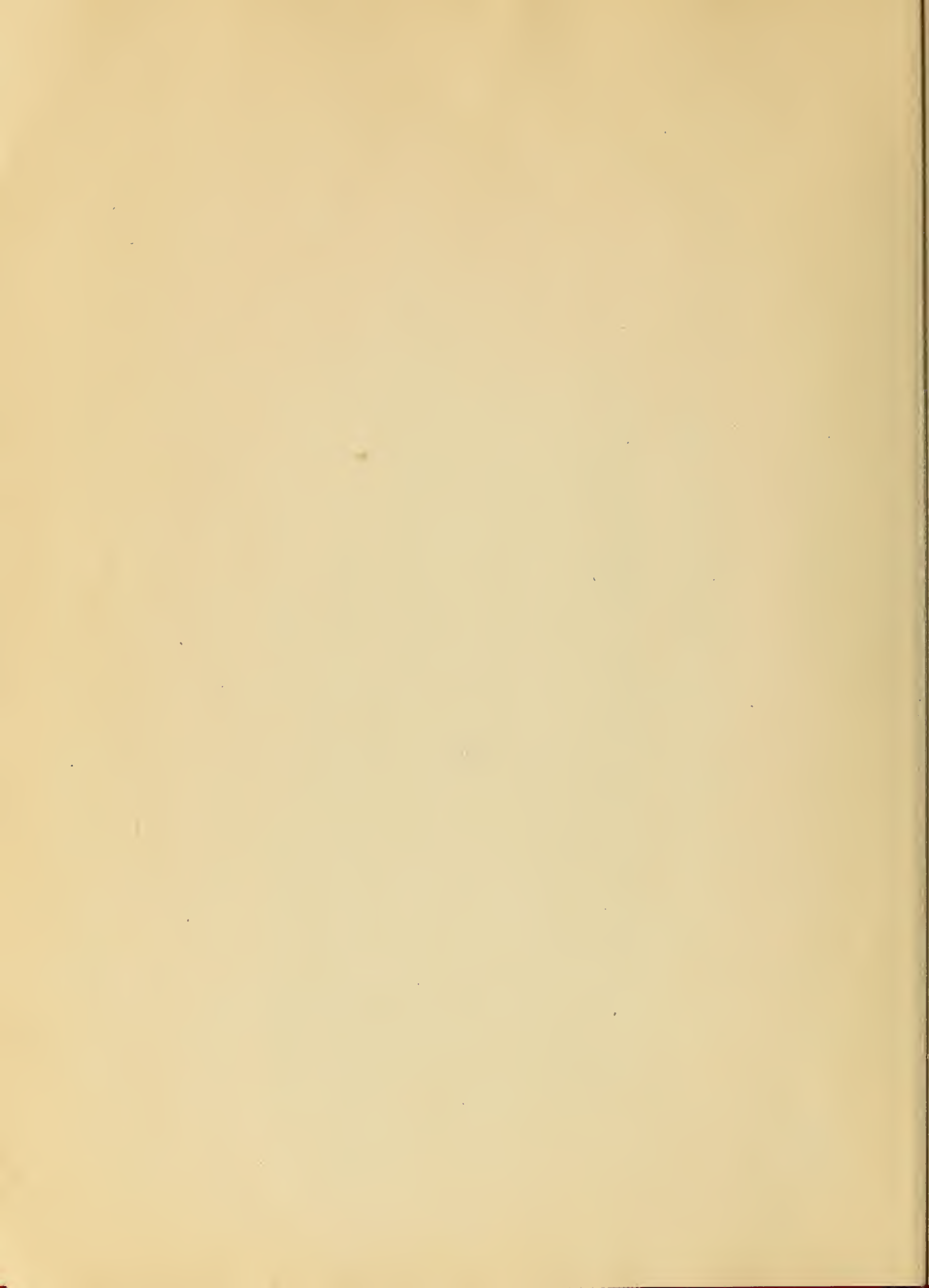
PHYSICAL CHARACTERISTICS
(continued)

Boys	Girls
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SEXUAL MATURITY (continued)

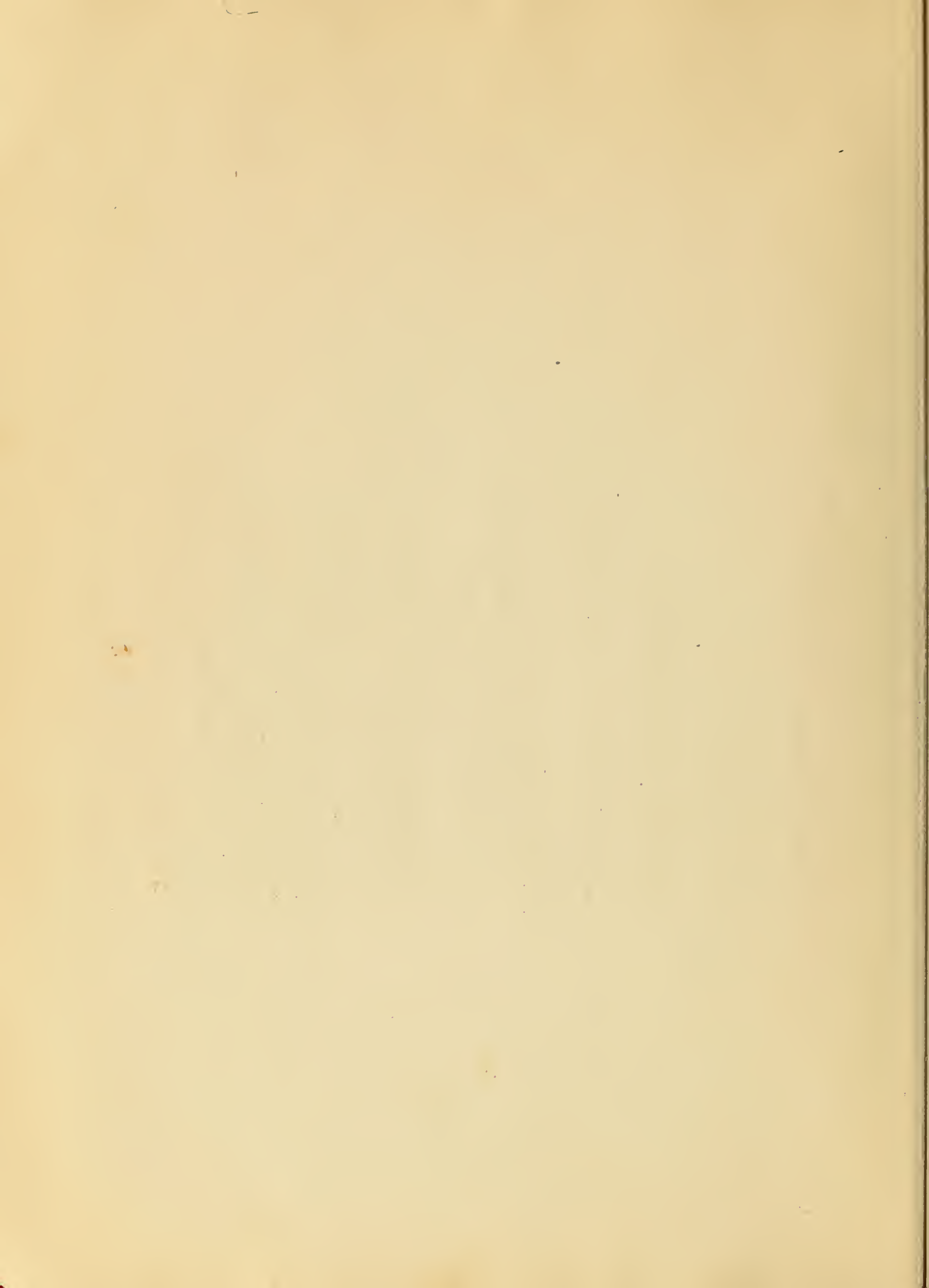
Appearance of a slight to moderate amount of noticeable hair on upper lip or face does not mean a lack of femaleness (65:24)

Endocrine glands increase gradually in weight and function (35, 36). Before the age of 11 or 12 years, measurable amounts of male and female hormones are excreted (65:75). After 11 years of age, excretion of its kind increases in each sex, but most rapidly for girls (64; 65:75).



MENTAL CHARACTERISTICS

Boys	Girls
Steady gain in mental growth (26)	
Just before 12 years of age, 50% of adult status in mental growth is attained (65:154)	
Some growth in ability to reason, comprehend, and gain insights (25, 50, 74, 81)	
Gain in ability to concentrate begins (5)	
Are more willing to memorize than later, but the process lacks efficiency (17:468)	
Do not dislike rote drill (17:468)	
Imagination is likely to be improbable and lacking in ideas and vocabulary (17:472-478)	
Differences in general ability between boys and girls have not been adequately demonstrated. In special abilities girls seem to make superior test scores in verbalisms and boys in mathematics (17:450)	
Mental disorders are low in this age range (65:5)	



EMOTIONAL CHARACTERISTICS

Boys	Girls
------	-------

FEAR

Fears are simple and personal. Reactions are forms of rigidity and running away (17:100)

Become afraid or worried about: (7, 44, 56, 71, 73, 98)
 failing a test in school
 illiness or overwork of father or mother
 bad report card
 father's loss of job
 tardiness
 personal physical injury, illness, death
 loss of money, fountain pen, friends

LOVE

Become deeply attached to some other child of own age and sex (homosexual stage) (17:103)

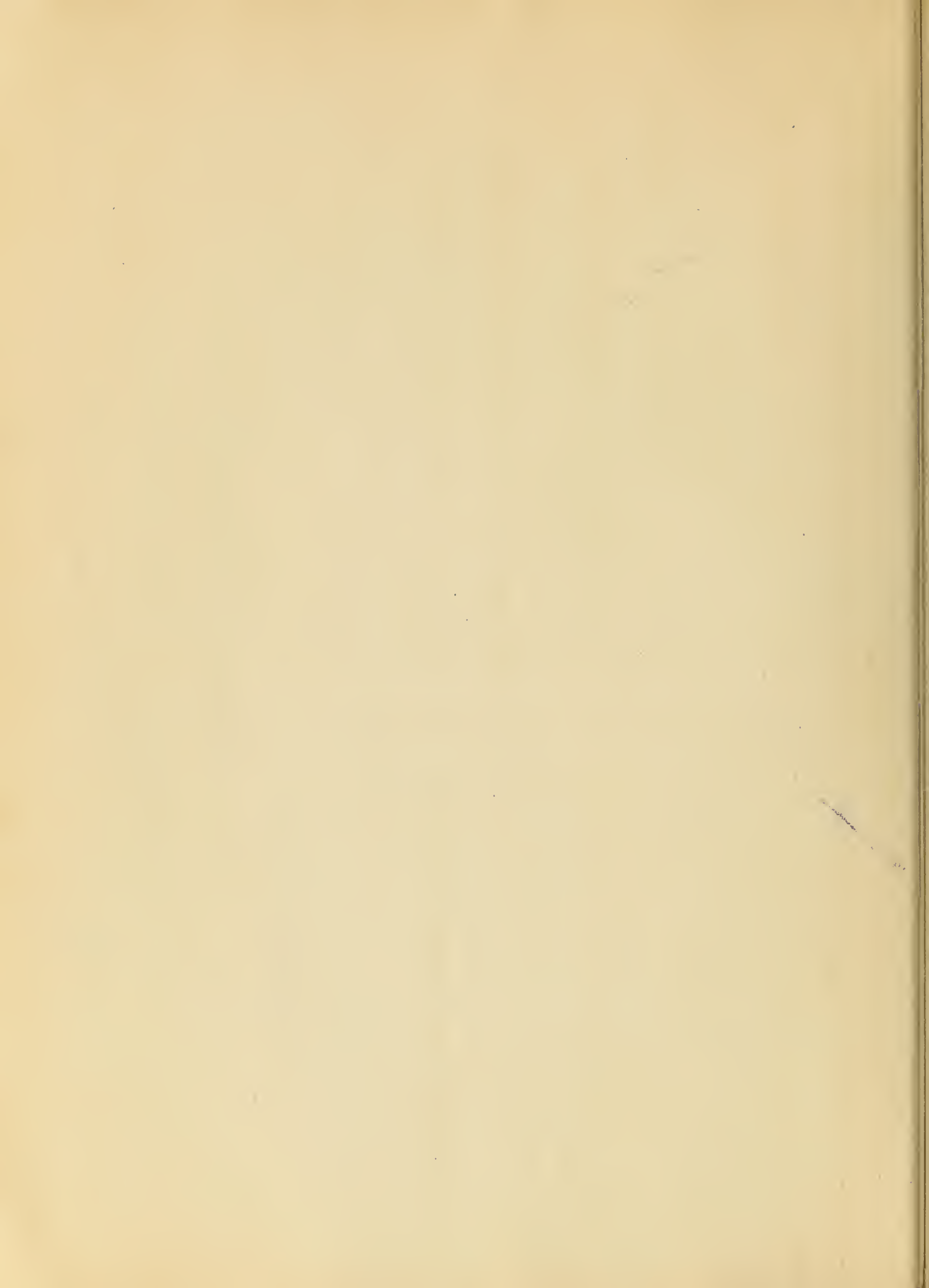
SOCIAL CHARACTERISTICS

7

Boys	Girls
The social unit is the gang which is composed of a small number of members of the same sex. Its main objectives are to seek adventure and excitement (17:219)	
These children may have a temporary but decided disapproval of the other sex (65:221)	
In natural play groups of their own, boys and girls seldom play together (65:221)	
Play harder, more noisily, and become more disheveled and dirty than girls (65:221)	Play in smaller groups than boys (65:221)
Try to be daring, good at games, a leader (94)	
Admire achievement of physical skills (65:221)	
Admire defiance of adult authority (94)	
Consider neatness and obedience signs of weakness (94)	
Have an admiration of these qualities in boys: (61; 65:227; 94)	Have an admiration of these qualities in girls: (61; 65:227; 94)
friendliness sense of humor enthusiastic competence in group games ability to lead and direct games fearlessness readiness to take a chance aggressiveness boisterousness somewhat unkempt	friendliness quiet good humor enthusiasm prettiness tidiness graciousness docility demureness obedience

SOCIAL CHARACTERISTICS
(continued)

Boys	Girls
<p>Talk and joke about their bodies (61, 65:234)</p> <p>Like quietness and sense of humor in girls (15)</p>	<p>Have a disapproval of these characteristics in girls: (61; 65:227; 94) aggressiveness boisterousness restlessness any behavior which causes disturbances in classroom</p> <p>Seldom talk about their bodies, probably because of lack of vocabulary (61, 65:234)</p> <p>Very modest (65:234)</p> <p>The tomboy is accepted, but the role is not sought (65:221, 228)</p> <p>Like quietness, sense of humor, and tidiness in boys (15)</p>



MORAL CHARACTERISTICS

Boys	Girls
------	-------

They have few if any prejudices toward persons (17:365). They tend to act on habits or limited concepts and generalizations from a limited number of experiences (19)



EARLY ADOLESCENCE
(13 - 15 years of age)





PHYSICAL CHARACTERISTICS

Boys	Girls
BODILY GROWTH	
Speedy gain in height (17:19)	Increase in height (17:19)
Speedy gain in weight (17:20)	Rate of growth in height lessens rapidly after first menstruation (83, 85)
Bones of wrist are larger than girls'	Gain in weight (17:20)
Spurt of growth in shoulder width (65:39)	Bones are almost mature (17:32)
Speedy gain in strength (43:22)	More permanent teeth than boys (17:35)
Blood pressure rises more rapidly than girls' (65:60; 77)	Steady growth in hip width (65:39)
Lung capacity increases more rapidly than girls' (88)	Greatest increment of strength occurs near time of first menstruation (65:108)
Basal metabolic rate decreases, but less rapidly than girls' (55:61)	Stronger in legs than arms (96)
	Gradually rising blood pressure (77)
	Basal metabolic rate drops (65:61; 93)
	Head approaches final adult size (17:35)
	Face grows rapidly in all proportions; jaw is often the last feature to attain adult size and angle (31, 32)
	Pulse rate is becoming slower (65:59; 69, 82)
	Stomach becomes longer and increases in capacity; individual craves food (17:44). Digestive disturbances probably prevail because of overloading the stomach, and are evidenced as pimples and/or peculiar ideas about food (27, 70)

PHYSICAL CHARACTERISTICS
(continued)

Boys	Girls
<p>SEXUAL MATURITY</p> <p>Sexual maturity is completed for about 75% (17:52)</p> <p>Endocrine glands increase gradually in weight and function except thymus, which develops rapidly (35, 36). Increased pituitary stimulates sex gland maturation, and this liberates male and female sex hormones into blood stream. This stimulates growth of sex organs, appearance of secondary sex characteristics and sex behavior. Normal development is dependent upon the properly timed action of pituitary and sex gland hormones; thus, precocious puberty usually results in small stature (65:16, 76). Increased amounts of sex hormones in the blood play a part in the arousing of sex behavior (65:76)</p>	<p>Sexual maturity is completed for about 95% (17:52)</p> <p>Average age for first menstruation is about 13 yrs. (22, 66, 80, 84)</p> <p>Menstruation cycles are quite likely to be irregular; in fact, absolute regularity seems to be the exception (22, 37)</p>
<p>SECONDARY SEX CHARACTERISTICS</p> <p>Secondary sex characteristics appear: hair on face, pubic and armpit hair, voice change (17:52)</p> <p>Voice change begins (65:21)</p> <p>Breast enlargement sometimes occurs in perfectly normal boys and probably is due to action of hormones (65:28)</p> <p>There is a noticeable increase in armpit perspiration due to increased activity of sweat and sex glands (33; 65:24)</p> <p>Sebaceous glands become very active. Appearance or acne is common (65:26)</p>	<p>Development of breasts is earliest sign of beginning sexual maturation (65:17)</p> <p>Well after breast changes, pubic hair appears, then the first menstruation appears, then armpit hair develops (65:17, 18)</p> <p>Appearance of a slight to moderate amount of noticeable hair on upper lip or face does not mean a lack of femaleness (65:24)</p>

MENTAL CHARACTERISTICS

Boys	Girls
<div>✓ Steady gain in mental and mechanical abilities (26)</div> <div>✓ Practically half of total mental growth occurs during adolescence (65:154)</div> <div>✓ Gain in IQ scores is greater now than in later teens (65:149)</div> <div>✓ Although ability to memorize increases, distaste of rote memorization becomes intense unless the material to be learned seems related to a goal (17:468-469)</div> <div>✓ Plateaus enter the growing ability to concentrate because of attention to stimuli of importance to the adolescent, but not to the adult (5; 17:472)</div> <div>✓ Imaginative powers show growth (17:472-478)</div> <div>✓ Steady increases in ability to reason, judge, generalize, gain insight (25, 50, 74, 81)</div> <div>Differences in general ability between boys and girls have not been adequately demonstrated. In special abilities girls seem to make superior test scores in verbalisms and boys in mathematics (17:450)</div> <div>Steady gain in spatial and temporal eye-hand coordination (65:127-129)</div> <div>Steady gain in bi-manual coordination with spurts in ability at 12½-13 years of age and at 13½-14 years of age (65:129)</div> <div>Growth in manual precision and steadiness more uneven than in girls (65:130)</div>	<div>Steady gain with spurts of ability in spatial eye-hand coordination, especially during 12½-13 years of age (65:127)</div> <div>Steady gain in temporal eye-hand coordination (65:129)</div> <div>Steady gain with spurts of ability in bi-manual coordination at 12½-13½ years of age and again at 14-15 years of age (65:129)</div> <div>Growth in manual precision and steadiness increases steadily, especially during 14-14½ years of age (65:130)</div>

MENTAL CHARACTERISTICS
(continued)

Boys	Girls
<p>✓ Early maturers seem to be slightly higher in mental scores than late maturers, up to late adolescence (65:169)</p> <p>✓ Sex differences seem to exist in favor of boys' attainment of high mental growth (8:62; 14, 54, 59)</p>	<p>✓ Early maturity seems associated with higher mental scores (1, 90)</p>

EMOTIONAL CHARACTERISTICS

	Boys	Girls
FEAR	<p>✓ Continue to show some of preadolescent fears, but fears and worries are mainly social and concern: (73, 98)</p> <ul style="list-style-type: none"> examinations auto accidents disease money supply getting a job appearance of home being led awrong lack of success hurt feelings making bad impressions social incompetence sexual experience disappointment to parents 	
LOVE	<p>✓ Reactions to fears continue to be forms of rigidity and running away (17:100)</p> <p>The love-object begins to be a person of about the same age, but of opposite sex (heterosexual stage) (17:105)</p> <p>May retain homosexual stage (17:103)</p>	<p>Homosexual interests may continue longer than in boys and manifest as great affection or "crush" for girl friend or older woman, especially some woman teacher (16, 42, 45)</p> <p>Falling in and out of love is quite normal. From short periods of attachment to different persons, the adolescent learns what type of person he likes best (17:107)</p>
ANGER	<p>✓ Tend to be angered by failure of material objects to function properly. Sometimes social reasons cause anger (29, 62)</p>	<p>Tend to be angered by social reasons (29, 62)</p>

EMOTIONAL CHARACTERISTICS (continued.)

Boys	Girls
<p>ANGER (Continued)</p> <p>✓ The infantile response to anger is kicking and stamping (29, 62)</p> <p>Response to anger tends to be talking rather than violence. Sometimes the response is pacing, going out, violent exercise (29, 62)</p>	<p>The infantile response to anger is crying (29, 62)</p>
<p>SEXUAL DEVELOPMENT</p> <p>Emotional reactions change as physical development progresses (12, 86). Some may be pleased that organs are larger than other boys' (17:60)</p> <p>Are often worried or afraid that enlarging organs can be seen through clothing; often disturbed, frightened, or embarrassed by dreams or nocturnal emissions (17:57)</p>	<p>Even though warned, the first menstruation is often upsetting because bleeding which cannot be stopped is viewed as serious and alarming. Many girls retain this feeling toward their menstrual period (41)</p> <p>Are quite likely to be embarrassed about the menstrual period. Fears result from notions that classmates are able to see precautions taken, or that stains on clothing have developed, or that others can tell that they are menstruating by the way they appear. Are often embarrassed because they must remain on sidelines in active games, or on shore if the crowd is swimming, and they fear that persons will ask why (17:58)</p>
<p>The appearance or retarded appearance of the various secondary sex characteristics (armpit and pubic hair, hair on face, voice change) may cause anxiety, distress, embarrassment, inferior feelings. They may be afraid to recite, sing, or talk to girls because the voice cannot be trusted (17:58)</p>	<p>Of all the secondary sex characteristics which appear (armpit and pubic hair, development of breasts, hair on face), the development of the breasts gives the greatest concern (17:60)</p>
<p>Gaining the characteristics of masculinity gives prestige to boys among their age-mates (17:58)</p>	<p>Prestige among age-mates is gained when breasts develop (17:59)</p>

EMOTIONAL CHARACTERISTICS (continued)

Boys	Girls
<p>SEXUAL DEVELOPMENT (continued)</p> <p>Reactions to sexual developments vary. Some are merely embarrassed; some are secretive; some try to act as if nothing has happened; some dread changes before they occur; some are frightened by each new change; some are very proud of their development. None can take their bodies for granted; all are interested in their own and each other's (17:60)</p>	<p>Some refrain from appearing before a group or running or playing games because of movement of or size of breasts. Some are very proud of themselves and stand so as to show off their breasts (17:60)</p>
<p>Unevenness of physical development often causes problems of adjustment (65:82)</p>	
<p>Adjustment problems are created by individual differences in the age at which their adolescent growth begins, proceeds, and ends (61:89-98; 65:82)</p>	
<p>Probably at least one-third of adolescents experience concern at some time about their physical characteristics (46; 65:86). For example: shortness or tallness can cause the adolescent to worry, be shy, or compensate in some manner. Fatness seems disturbing to boys and girls, but more so to girls (65:86-90)</p>	
<p>Deviations from the accepted way in which boys and girls should develop cause worry, temporary, vague, or lasting dissatisfaction, efforts to compensate or improve (65:91)</p>	<p>Body characteristics which may cause adolescent girls to feel they are not developing according to the accepted pattern for their sex include: (65:92)</p>
	<p>unusual tallness squattiness large hands large feet clumsy ankles heaviness of lower jaw general massiveness of body build</p>

EMOTIONAL CHARACTERISTICS (continued)

Boys	Girls
	<p>undeveloped breasts very large breasts pigmented facial hair extreme thinness moderate or extreme fatness hairiness of arms and legs</p>
<p>Are more likely to do something to relieve their feelings about body deviations from the accepted pattern for their sex than are boys. For example: they will diet to become rid of excess fat, wear high heels to appear taller if they are short, etc. (65:92)</p>	<p>How a person "smells" becomes increasingly important (65:95)</p> <p>These adolescents become increasingly conscious of being clean (94). Cleanliness, for them, refers to all parts of the body: skin, finger and toe nails, neck, ears, hair, nostrils (65:97)</p> <p>Become concerned about any physical characteristic which they feel keeps them from looking masculine, or about any physical feature which is noticeably different (65:94)</p> <p>Become disturbed by any characteristic which they think at the time prevents their being glamorous: acne, moles, scars, birthmarks, oily skin, large pores, freckles, "smells" (65:94)</p> <p>Become very interested in their hair. It is one means of looking like a woman and not a little girl. Frequent change of "hair-do" is normal (65:93)</p> <p>Acne causes universal emotional disturbances (65:95). The desire to improve the face is of great concern (65:93)</p>

PERSON

Boys	Girls
<p>✓ The social unit is the "crowd" or "clique". It is made up of larger numbers than "the gang" and an attempt is made for an equal number of boys and girls. Its objective is to provide normal social relationships between the two sexes. Membership seems to be based on sympathetic personalities and particular boy-and-girl friendships (17:219-226). It has greater importance than the family in providing models of behavior (65:201)</p>	<p>✓ Sometimes these social groups become competitive and interfere with the smoothing of school affairs (17:226)</p>
<p>✓ An individual's class status is determined by his "crowd" or social clique (65:201)</p> <p>✓ These adolescents are aware of the distances between their relationships; that is, they consider some persons confidants, some intimates, some acquaintances, some persons they know but do not speak to (79)</p>	<p>✓ They want to choose their own friends without adult advice and tend to emphasize externals in making their choices (17:238). The lack of an adequate number of friends causes great unhappiness (17:244). "Crowds" supply needed friends and are spontaneous and educative in their activities for the participants, but pointless to adults (11, 28, 51, 89)</p>
<p>✓ Boy-girl friendships are normal and necessary. They give necessary experiences for forming ideals for mate-choosing and marriage, later, when direct home supervision is not present (17:243)</p>	<p>✓ In their group of associates the adolescents learn about sex roles, cooperation and competition, social skills, values, and purposes by doing (65:203)</p>
<p>✓ Because of body-growth changes, interest is focused on the body and ideas of self begin to change (97: Chap. 2)</p>	<p>✓ Become aware of self and try to develop self-ideals and acceptance of self in relation to them (65:83). Want to be accepted by associates (peers) and to have some close friends (65:83)</p>
<p>✓ With the desire for acceptance by the group, all efforts are directed at appearing, behaving, and doing like the group does (65:223). This group becomes a bulwark of strength against adult authority, whose standards of behavior do not matter (65:224). Adults' demands tend to interfere with what is important to the adolescent's developmental tasks (65:220, 224)</p>	

SOCIAL CHARACTERISTICS (continued)

Boys

There is also an urge to be unique and achieve individuality, but with acceptance of the group (65:223)

Learn to understand responsibilities and relationships of the sexes in life (61; 65:232)

Become aware of the peculiar characteristics of members of the opposite sex and regard them as the focus of interest, source of embarrassment, or even danger (65:4)

Some undesirable friend choices between members of own and opposite sex often are made and should be allowed to wear out in safe meeting places, especially the home (17:239)

✓ The adolescent who has negative or withdrawal traits is regarded unfavorably by his classmates. A poor reputation is increased by failure to participate in group physical activities (18)

They seem to be loyal to the natural leaders in their groups (17:256)

They must achieve independence from parental control (65:246). They are attracted to life outside the home, but need to feel that they can return to the home for help and assurance (65:248)

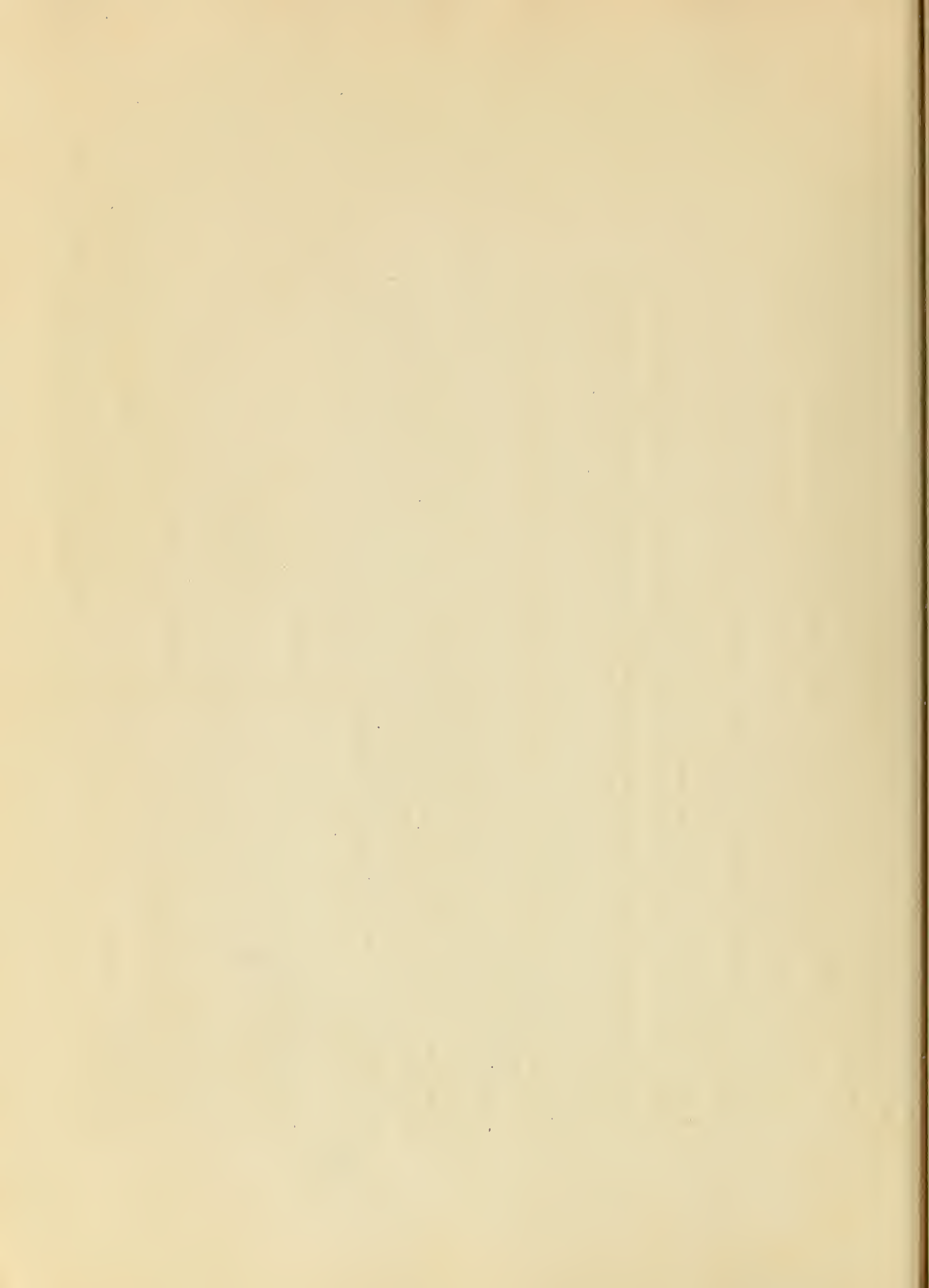
✓ May lack techniques in getting along with girls; therefore, watch and tease them (61)

Admire in girls: (15)
sense of humor
friendliness
quietness

Admire in boys: (61, 65:228; 94)
physical skill and daring
grooming
leadership in games
likeableness
social ease and poise

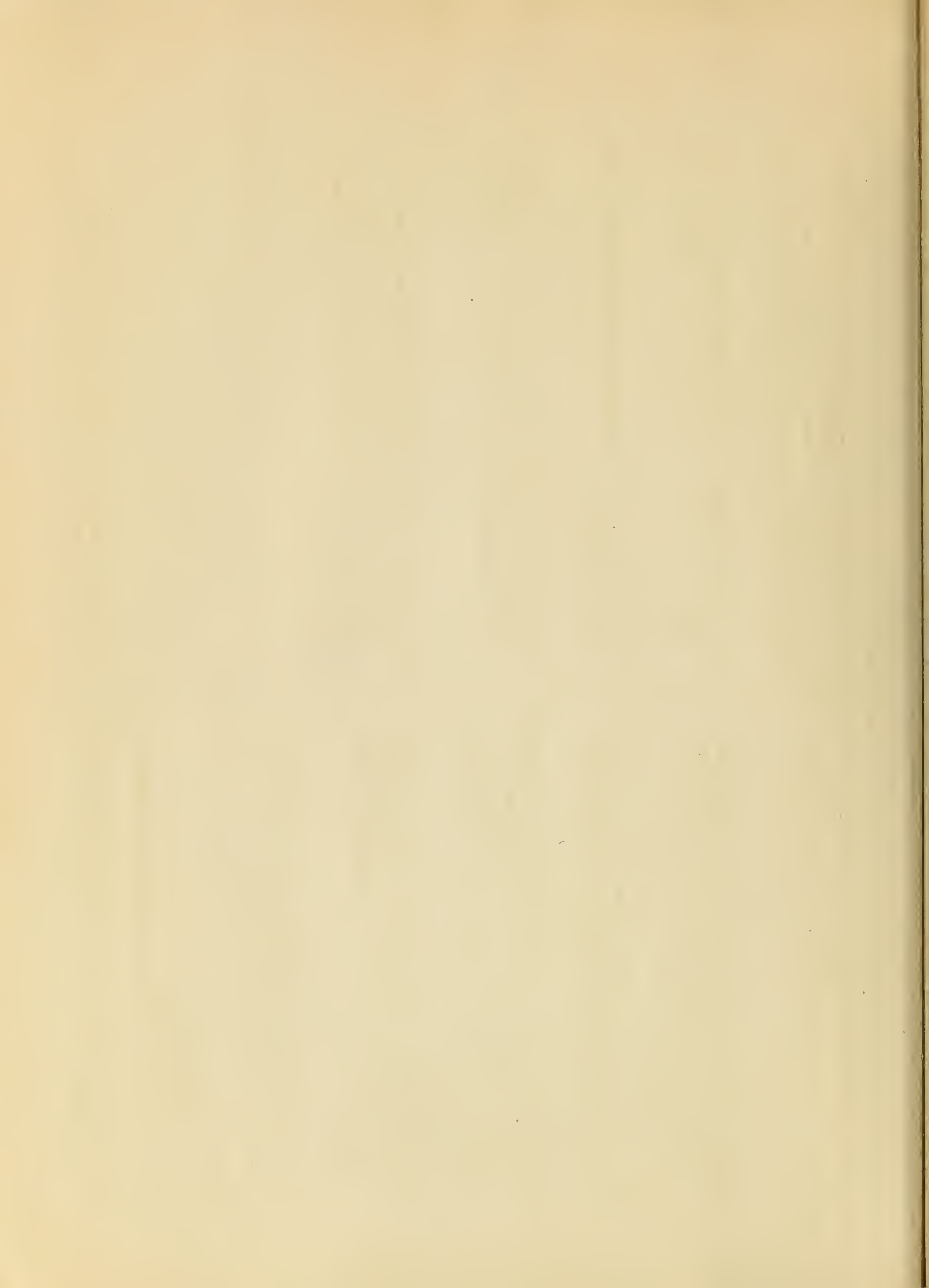
Admire in boys: (15)
sense of humor
friendliness
masculinity
tidiness

Admire in girls: (61, 65:228; 94)
bouyant amiability
aggressive good sportsmanship with boys
and girls
attractive well-groomed sophisticated person
restlessness and boisterousness



SOCIAL CHARACTERISTICS
(continued)

Boys	Girls
<p>Begin to have concern about their appearance, to show superiority in endurance and courage in games, to conform to the group pattern (11, 65:223; 89, 94)</p>	<p>Make exaggerated responses to stimuli: giggle over nothing, rave about things (94)</p>
<p>The boy who stays unkempt after his age-mates have changed may be accepted by boys, but not by a mixed group (65:97)</p>	<p>Have great interest in own person and appearance: hair arrangement, lipstick, rouge, eyebrow line (94)</p>
<p>Popularity is significantly related to strength and physical ability. Lacking physical ability, great enthusiasm or friendly sociability or aggressive enterprise are used to compensate (6)</p>	<p>If not clean, will be unpopular with both boys and girls (65:97)</p>
<p>Conditions which keep them from looking masculine, winning prestige with other boys, or popularity with girls are adjustment hazards (65:85)</p>	<p>Lose interest in active games or display of athletic ability for the sake of competition. Participation is on social basis (65:117)</p>
<p>The pattern accepted by boys for their sex includes: tallness, broad shoulders, big chest, strength, masculinity (65:91)</p>	<p>Any condition which interferes with acceptance by other girls, from looking and acting in conformance to ideals of being attractive, or makes boys avoid them is a potential adjustment hazard (65:85)</p>
<p>Are expected to become: (65:232, 97) independent self-reliant able for competition and achievement</p>	
<p>Talk and joke about their bodies and sex duties (61, 65:234)</p>	<p>Seldom talk about their bodies and sex duties probably from a lack of vocabulary (61, 65:234)</p>

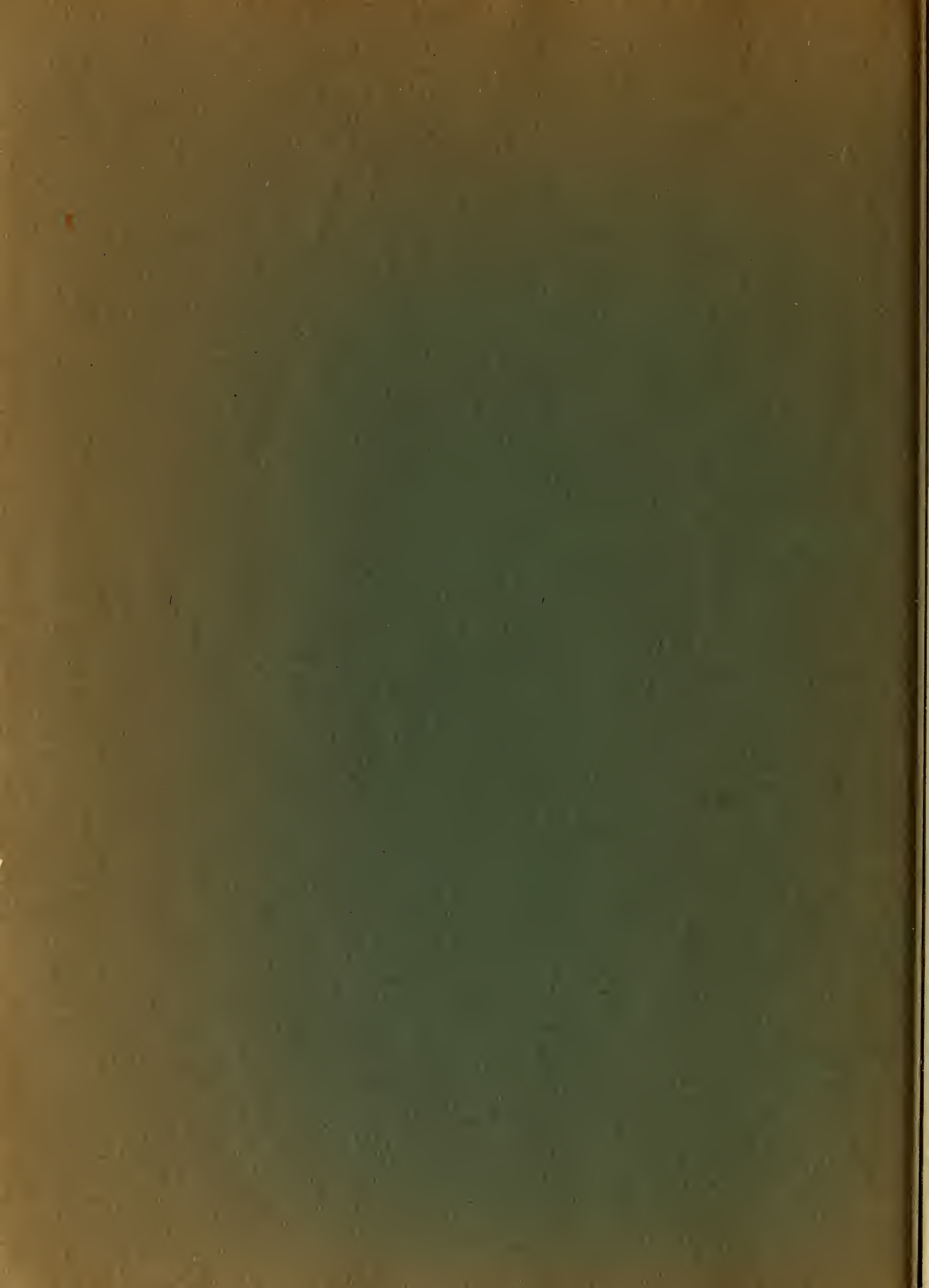


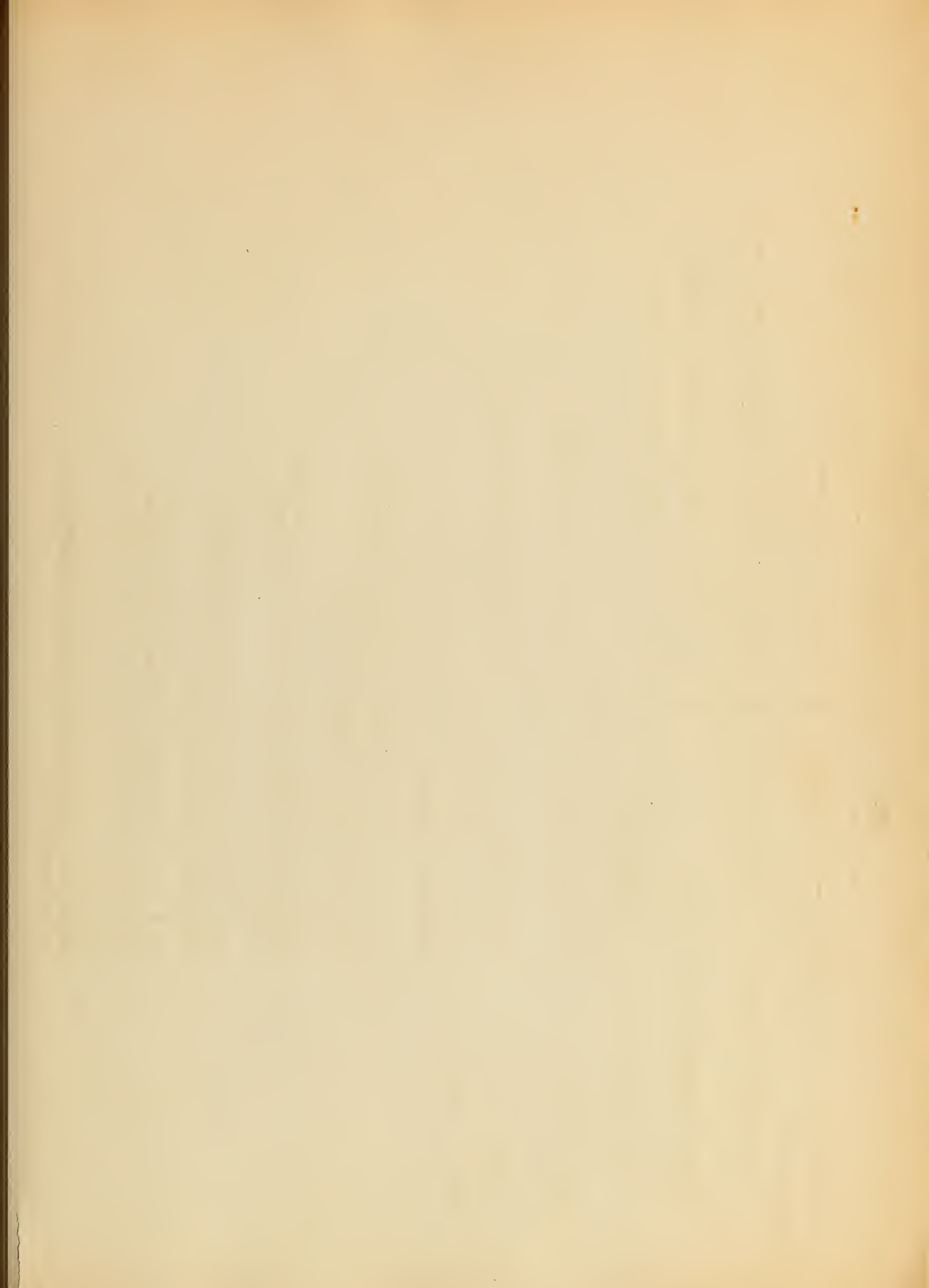
MORAL CHARACTERISTICS

Boys	Girls
<p>Easily become intolerant of persons unlike themselves (17:369)</p> <p>Almost one-third of this age group believes superstitions, but as their knowledge increases they lose them somewhat (9, 10, 68, 91, 95)</p> <p>They have accepted "taught" religious beliefs, but are becoming doubtful (58)</p> <p>✓ Dishonest behavior is more likely to show from the dull, retarded child from a poor-type home than from the bright, accelerated, resistant child from a good-type home. This behavior does not decrease, necessarily, with age or general instruction (38)</p> <p>Without direct instruction, although it helps, these adolescents like to develop ideals and apply them to situations (17:390, 400)</p> <p>✓ They are wanting to find a meaning to life to gain a sense of security and emotional thrill (17:394; 20, 53, 63)</p>	



MIDDLE AGE
(16 - 18 years of age)

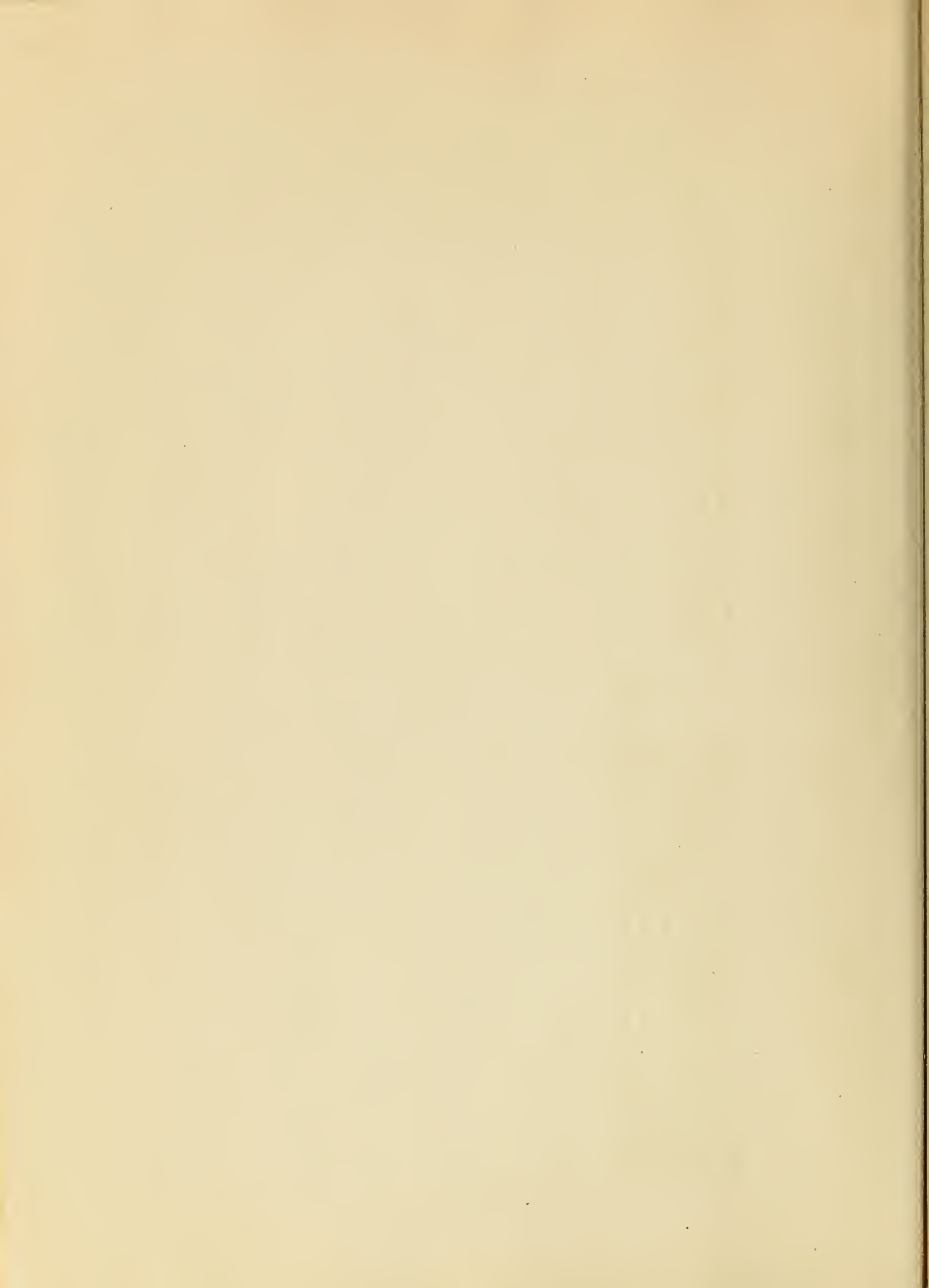




Boys	Girls
<p>BODILY GROWTH</p> <p>Adult height is reached at 18 years of age (17:19)</p> <p>Weight increase is rapid (17:20)</p> <p>Continued speedy gain in strength (43:22). Show spurt of ability in vertical and broad jump, distance throw (65:114)</p> <p>Bones of wrist continue to become larger than girls' (17:32)</p> <p>Slight rise in blood pressure (77)</p> <p>Basal metabolic rate drops (65:61; 93)</p> <p>Continued slackening of pulse rate (69, 82)</p> <p>Wisdom teeth erupt after 17 years of age (17:35)</p> <p>Trunk lengthens to adult size (17:35)</p> <p>Crave food (17:44). Digestive disturbances are evidenced by pimples and peculiar ideas about food (27, 70)</p> <p>Increase in amount of perspiration, which eventually subsides (17:47)</p> <p>Hair line about forehead changes and sometimes develops indentations over each side of forehead (34, 87)</p> <p>Death rate increases 100% because of strains of adjustment (65:5)</p>	<p>Growth in height is practically completed at 16 years of age (17:19)</p> <p>Very little increase in weight (17:20)</p> <p>Very slight gain in strength (43:22)</p> <p>Bones are mature (17:32)</p> <p>Drop in blood pressure (77)</p>

PHYSICAL CHARACTERISTICS
(continued)

Boys	Girls
<p>SEXUAL MATURITY</p> <p>Sexual maturity is completed for all (17:52). Secondary sex characteristics develop further. Facial down-like hair changes to stiff, wiry hair first on upper lip, then upper part of cheeks, then lower lip, then chin and sides of face in front of ears (65:23)</p>	<p>Menstruation cycles are quite likely to be irregular; absolute regularity seems to be the exception (2, 23, 24, 51, 57)</p>



MENTAL CHARACTERISTICS

Boys	Girls
------	-------

Practically half of mental growth occurs during adolescence (65:154)

Cessation of mental growth seems to appear near the close of this period although some workers have found it extended a few more years (26, 39, 55, 57, 78, 92:166-68)

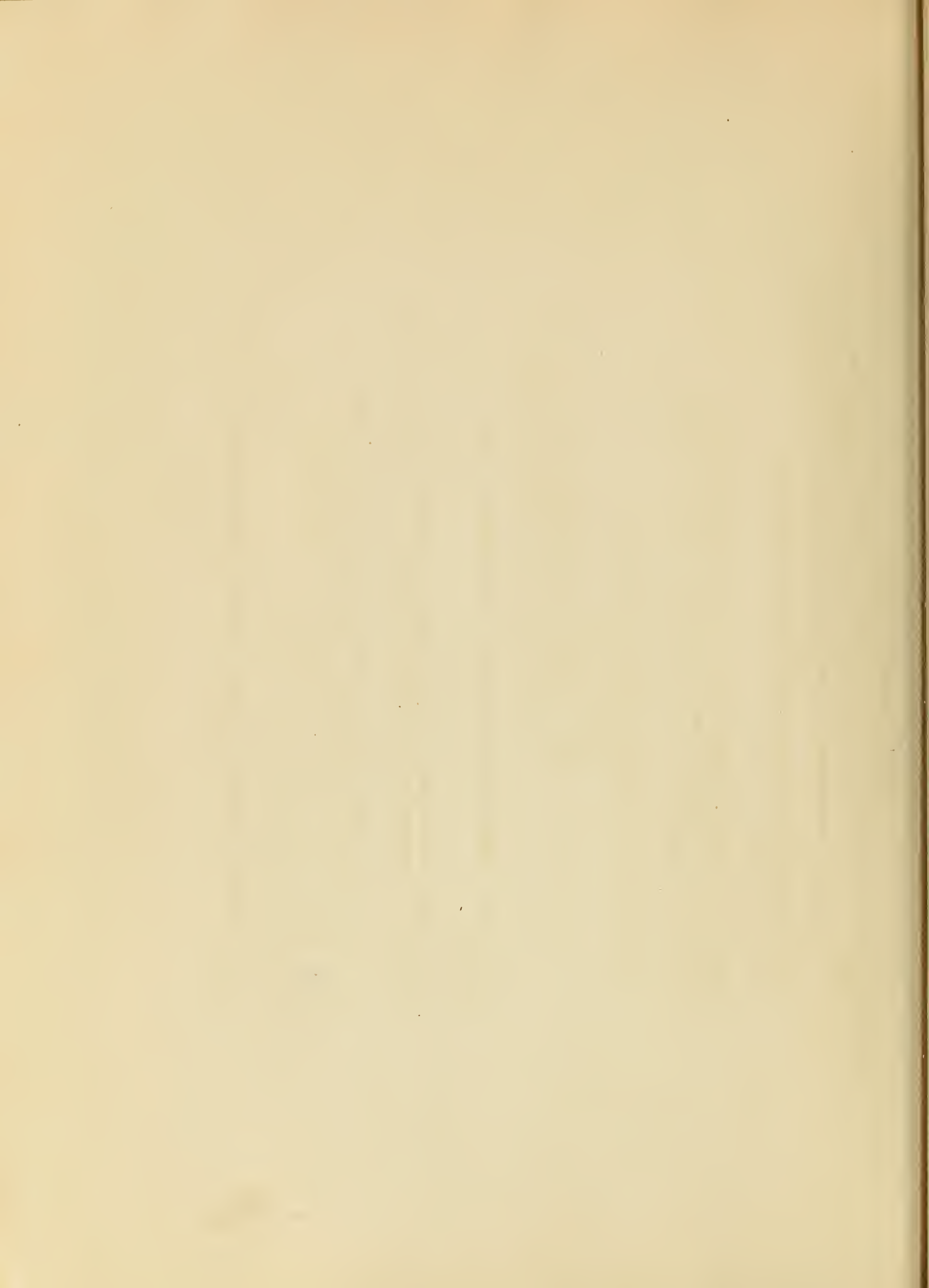
Continued growth increases show in ability to
concentrate (5)
reason (50, 74)
gain insights and generalize (25, 81)
use imagination, with emphasis on emotional-
ization and use of words (17:474-478)

Dislike rote memorization unrelated to a recognized goal (17:468)

Often become interested in school work as they see it in relation to a career in the future (65:225)

Differences in general ability between boys and girls have not been adequately demonstrated. In special abilities girls seem to make superior test scores in verbalisms and boys in mathematics (17:450). Differences favoring boys seem to exist on performance tests (65:176)

A 10% increase in mental disorders occurs at this age level (65:5)



EMOTIONAL CHARACTERISTICS

Boys

Girls

FEAR

Fears and responses tend to be the same as for 13-15 years of age (73, 98)

LOVE

Love-object is a person of about the same age, but of opposite sex (heterosexual stage) (17:107)

Falling in and out of love continues to be a normal procedure by which they are learning the type of person they like best (17:107)

ANGER

Anger is aroused mainly because material objects fail to function properly and is responded to with talk, restlessness, violent exercise, kicking. Sometimes social reasons cause anger (29, 62)

Anger is aroused mainly for social reasons and responded to by talk, restlessness, violent exercise, crying (29, 62)

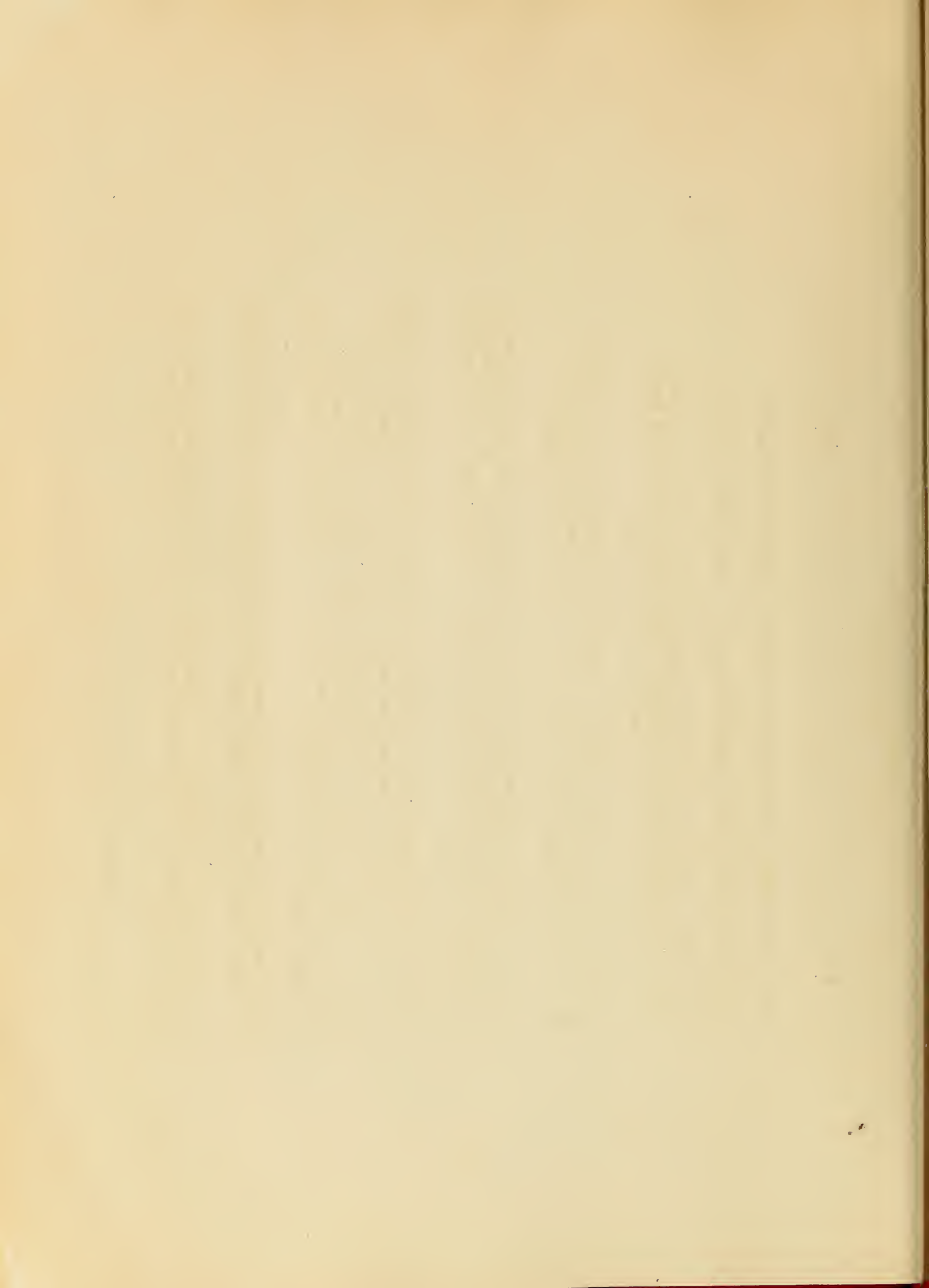
WORRIES AND ANXIETIES

Common sources of worry and anxiety include ability to meet intellectual requirements such as passing examinations, getting promoted, gaining a place on the honor roll, "making the grade", or escaping unfavorable notice for low grades (65:179)

Boys	Girls
Continuance of same facts in social growth as at 13-15 years of age	
Admire in girls: (15) sense of humor friendliness	Admire in boys: (15) sense of humor masculinity tidiness
Dislike in girls: (15) quietness no attempt to be good looking	Dislike in boys: (15) quietness untidiness no sense of humor
Admire in boys: (65:233; 94) excellence in games aggressiveness fearlessness poise good grooming	
Consider defiance immature, but indulge in it sometimes (94)	Accept the adult feminine pattern of behavior (61, 65:233; 94)
Any bodily condition which prevents them from achieving success in preparation for their chosen vocational pursuit is a potential hazard to adjustment (65:35)	
Basis for realizing achievements broadens to in- clude such areas as dramatics, student govern- ment, journalism (61; 65:233)	
Use verbalisms and humor to learn about their bodies and sex-duties (61; 65:234)	Seldom talk about their bodies and sex-duties evidently because of lack of vocabulary (61; 65:234)
Unconcerned about modesty (61, 65:234)	
Making and keeping one's self as presentable as possible becomes routine (65:224)	
A discriminatory attitude in most matters takes precedence over conformity to ideas held by the group (65:225)	

SOCIAL CHARACTERISTICS (continued)

Boys	Girls
They choose each other because of special qualities (65:225)	
They are exploring the possibilities of a future mate (65:225)	
They become concerned about their families in relation to other families as they learn that social life around them varies from what they had been told or imagined (65:249; 72)	
They are likely to have fanciful pictures of society and to respond in one of two ways as they try to live in the social order about them: disillusionment, or, zeal to remake the world (65:250)	
They hold ideas of themselves and their capabilities which vary from an "all-ability" consciousness to a docile attitude. As they associate and observe socially, they may see where they can exert and/or revise themselves (65:251)	
Anxiety to attain the type of behavior for one's socio-economic status, or that of a status to which one aspires to rise, is a powerful drive for developing the necessary attitudes, appreciations, and relationships (65:203-5, 207). [As adolescents become increasingly aware of the need for social acceptance, career, "good marriage", they respond to social disciplines (65:208)	
Adolescents in low-class socio-economic status begin to feel the mark of their position more keenly than before (65:208)	
If their family is falling in class status, they see their trouble and try to avoid behavior and situations which reveal their weakened position (65:208)	



MORAL CHARACTERISTICS

Boys	Girls
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This age group holds the same moral characteristics they did during their 13-15 year-old-stage except that their prejudices and antagonisms become intensified and their group social life begins to mold their opinions and attitudes (17:369; 48)

LATE ADOLESCENCE
(19 - 21 years of age)



PHYSICAL CHARACTERISTICS

Boys	Girls
BODILY GROWTH	
Some increase in weight (17:20)	No increase in weight (17:20)
SEXUAL MATURITY	
Stiff, wiry hair develops on throat (65:23)	Menstrual cycle is likely to be irregular; absolute regularity seems to be the exception (2, 23, 24, 51, 67)
Voice change is completed (65:21)	Duration of flow seems to average $4\frac{1}{2}$ days and to range from 3 to 7 days (23)
No necessary relationship between the depth of the voice and the degree of masculinity exists (65:21)	

MENTAL CHARACTERISTICS

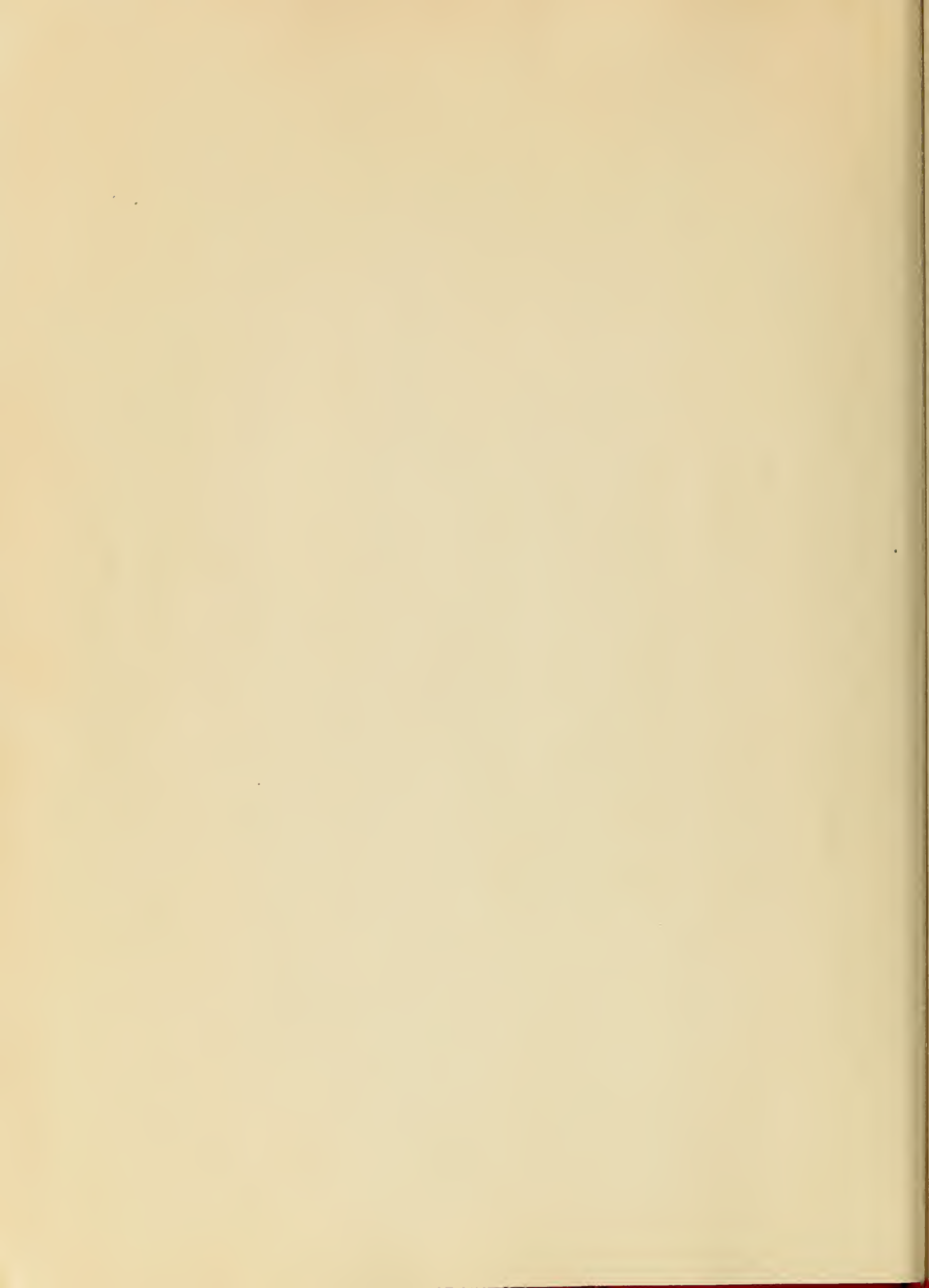
Boys	Girls
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Practically the latter half of mental growth occurs during early and middle adolescence, but maturation of many abilities is attained during late adolescence (65:154, 178)

Recent studies indicate that prolonged educational environment produces decided gains in mental growth during late adolescence (39, 55, 57, 78, 92)

Cessation of mental growth seems to appear (26; 65:158)

Prefer logical to rote learning (17:468)



EMOTIONAL CHARACTERISTICS

Boys	Girls
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FEAR

Fear characteristics of early and middle adolescence disappear. This age group tends to hold fears about: (73)

- examinations and grades
- ability for success
- money
- having nice clothes
- getting along with families
- getting a job
- getting married

Fears tend to be practical (17:100). An average of 45 fears is lost from the sixth grade until the last year of college, approximately at the close of this age-group (73)

LOVE

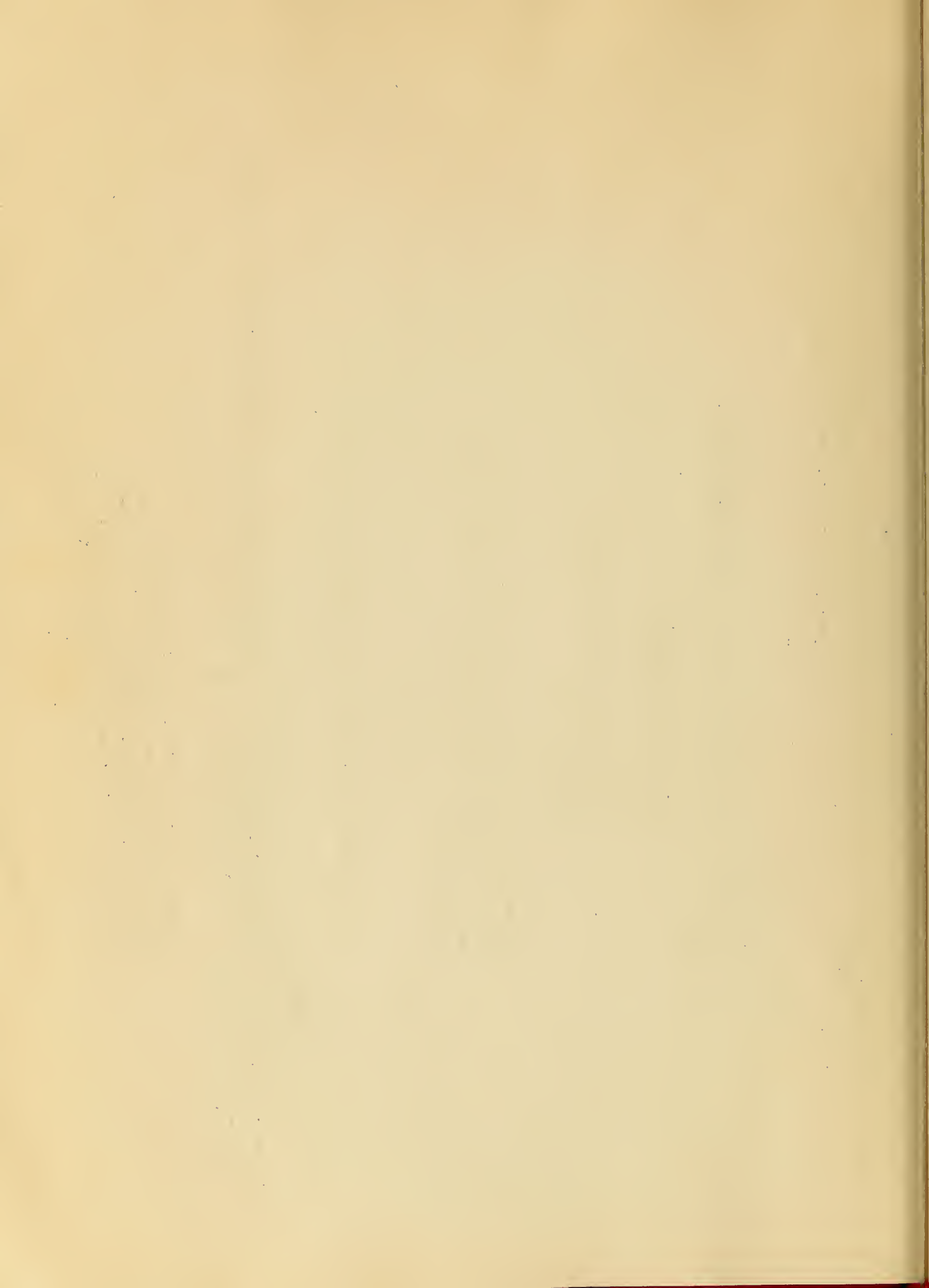
Heterosexual adjustment is well established (17:108)

ANGER

Anger continues to be aroused by failure of material objects to function immediately and properly (29, 62)

Anger continues to be aroused from social reasons (29, 62)

Become angered about impersonal matters, especially situations. They tend to respond verbally, although men continue to kick things sometimes, and sometimes women cry (13, 29, 62)

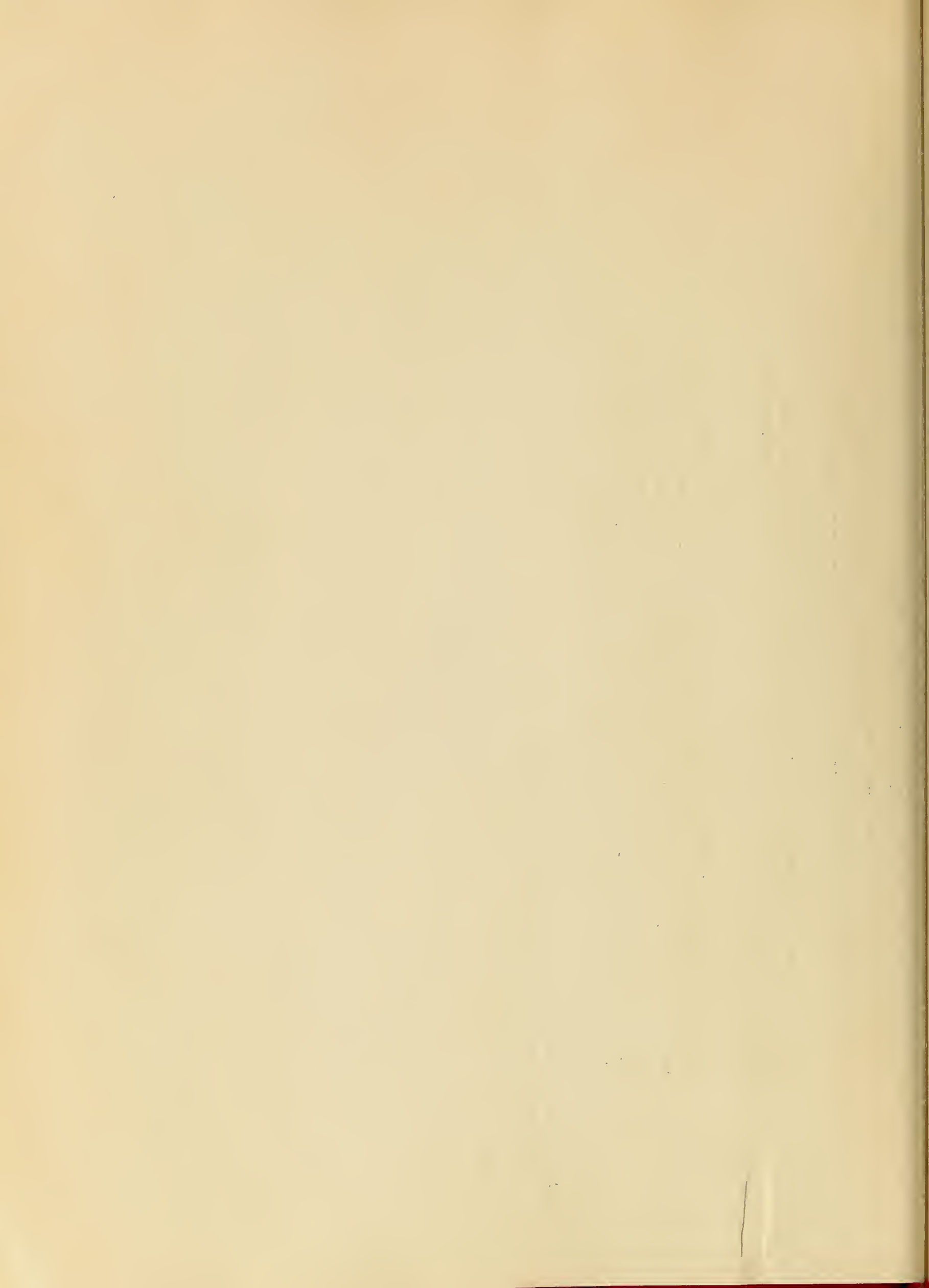


Boys	Girls
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Many of these adolescents fail in their task to adjust their ideas of themselves to the social order. The results are mental disorders and suicide (65:252)

Many of this group succeed in identifying themselves with prevailing cultural purposes and values, but many do not. Resistance to identification is done in social groups which reject the standards of adult society as it exists and set up their own patterns in costume, language, dance, and sex mores. This is their means of resisting the demands and pressures of the culture of the adult world (65:237-238)

Any bodily condition which prevents them from achieving success in preparation for their chosen vocational pursuit is a potential hazard to adjustment (65:85)



MORAL CHARACTERISTICS

Boys	Girls
------	-------

Become intolerant of persons not like themselves. Their prejudices and antagonisms become intensified by their social groups (17:369; 48)

Some superstitious beliefs persist (21)

Very few are atheistic. Most of them believe fundamental religious doctrines; however, there is more dubiousness than in early adolescence (30)

Girls do less revolting against religious beliefs than boys (58)

Specific instruction causes changes in attitudes toward liberalism, but general instruction does not alter attitudes greatly. These adolescents are affected readily by propaganda because of its narrow specific appeal (3, 47, 49, 52, 75, 76)

Tactful dishonest practices are used (40, 60)

These adolescents are concerned emotionally about ideals which they generalize from their past experience and use to analyze the conduct of themselves and others (17:394)

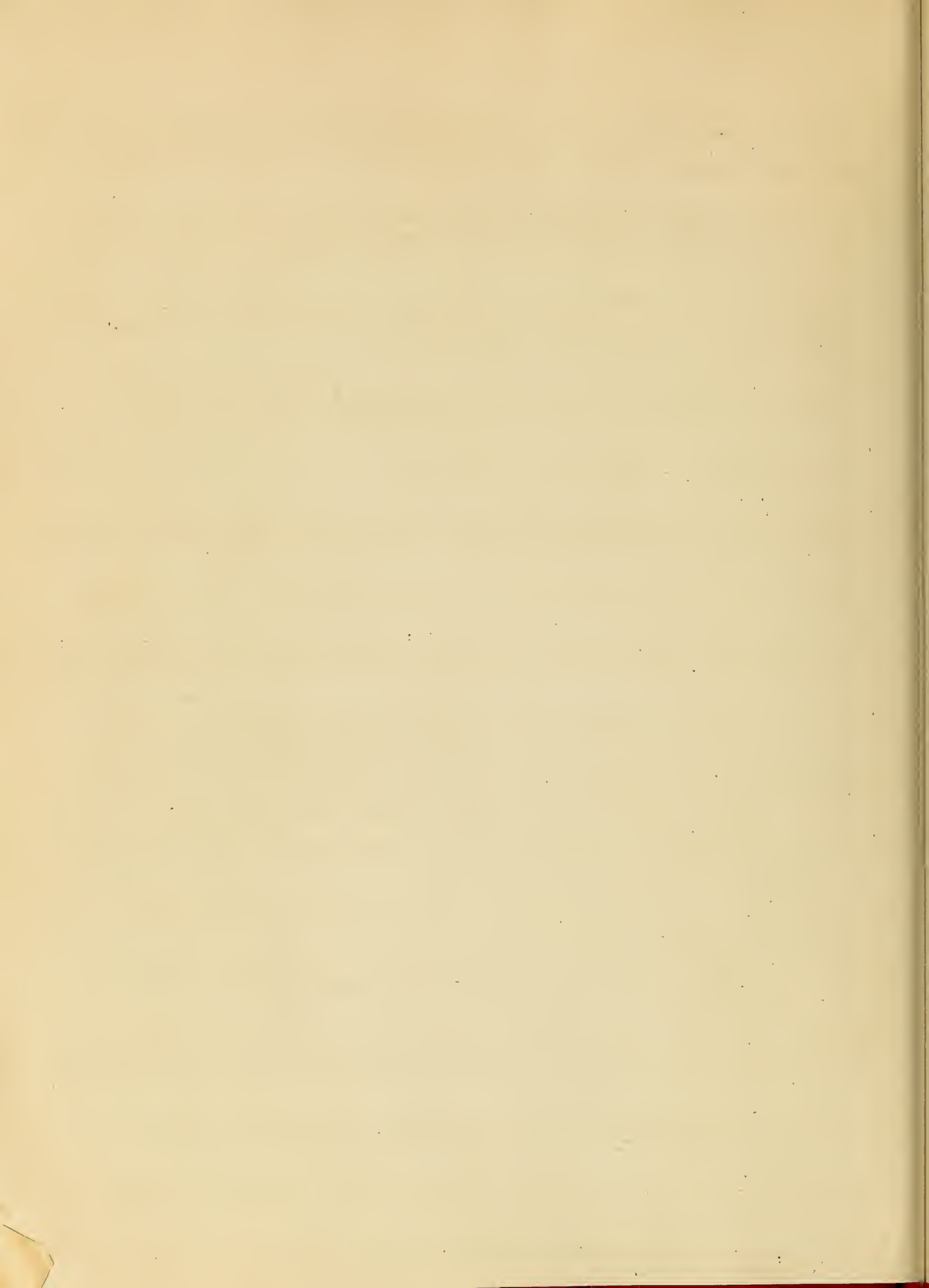


REFERENCES



REFERENCES

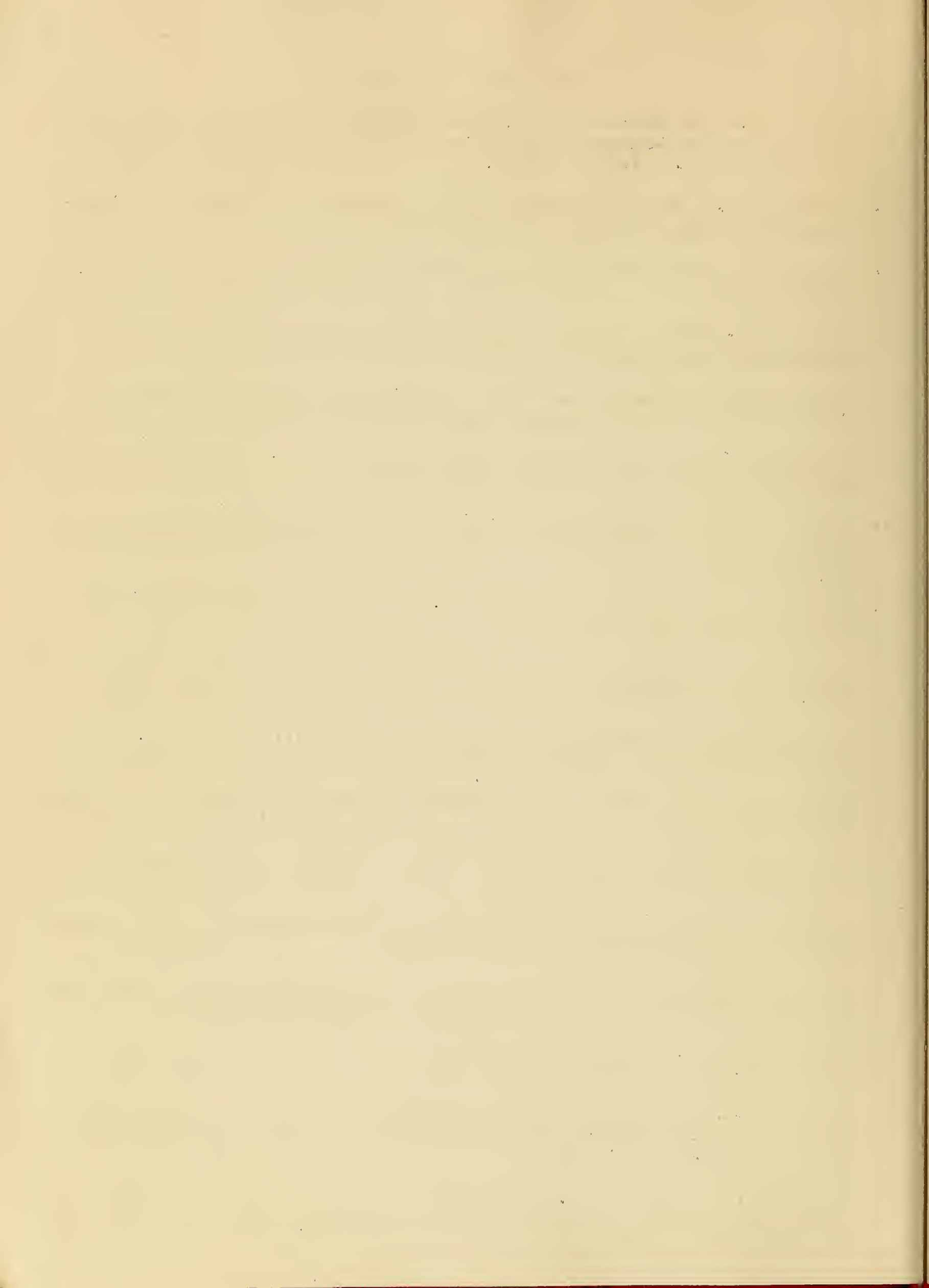
1. Abernethy, E.M. Relationships Between Mental and Physical Growth. Monographs of the Society for Research in Child Development, Vol. I, No. 7, Washington: National Research Council, 1936. Pp. vii and 80.
2. Arey, L.B. "Degree of Normal Menstrual Irregularity: Analysis of 20,000 Calendar Records for 1500 Individuals," American Journal of Obstetrics and Gynecology, XXXVII (1939), 12-29.
3. Bateman, R.M., and Remmers, H.H. "A Study of the Shifting Attitudes of High School Students when Subjected to Favorable and Unfavorable Propaganda," Journal of Social Psychology, 13:395-406, 1941.
4. Bayley, N. "Skeletal Maturing in Adolescence as a Basis for Determining Percentage of Completed Growth," Child Development, XIV (1943), 1-46.
5. Bickersteth, M.E. "Application of Mental Tests to Children of Various Ages," British Journal of Psychology, 9:23-73, 1917.
6. Bower, P.A. "The Relation of Physical, Mental, and Personality Factors to Popularity in Adolescent Boys," Doctor's Dissertation, University of California, 1940. Berkeley, California: University of California Library.
7. Bronner, A.F. "Adolescent Anxieties," Child Development, 13:206-208, 1936.
8. Burks, B.S.; Jensen, D.W.; and Terman, L.M. Genetic Studies of Genius, III. The Promise of Youth. Stanford, California: Stanford University Press, 1930. Pp. xiv and 508.
9. Caldwell, C.W., and Lundeen, G.E. "Further Studies of Unfounded Beliefs among Junior High School Pupils," Teachers College Record, 36:35-52, 1934.
10. Caldwell, C.W., and Lundeen, G.E. "A Study of Unfounded Beliefs Among High School Seniors," Journal of Educational Research, 22:257-73, 1930.
11. Cameron, W. Jaffray "A Study of Early Adolescent Personality," Progressive Education, XV (November, 1938), 553-63.
12. Carey, T.F. "Relation of Physical Growth to Developmental Age in Boys," Catholic University of America, 1935.
13. Cason, H. "Common Annoyances," Psychological Monographs, Whole Number 182, Vol. 40, No. 2, 1930, 218 pp.
14. Cattell, P. "Do the Stanford-Binet IQ's of Superior Boys and Girls Tend to Decrease or Increase with Age?" Journal of Educational Research, XXVI (1933), 668-73.
15. Chaffey, J. "Reputation Records," Development in Adolescence, Vol. I, Institute of Child Welfare, University of California, 1941.
16. Chambers, B. "The Adolescent Girl and Her Teacher," New Era, 17:105-108, 1936.
17. Cole, Luella. Psychology of Adolescence. Farrar and Rinehart, Inc., New York, 1942. Pp. vii and 660.



REFERENCES (Continued)

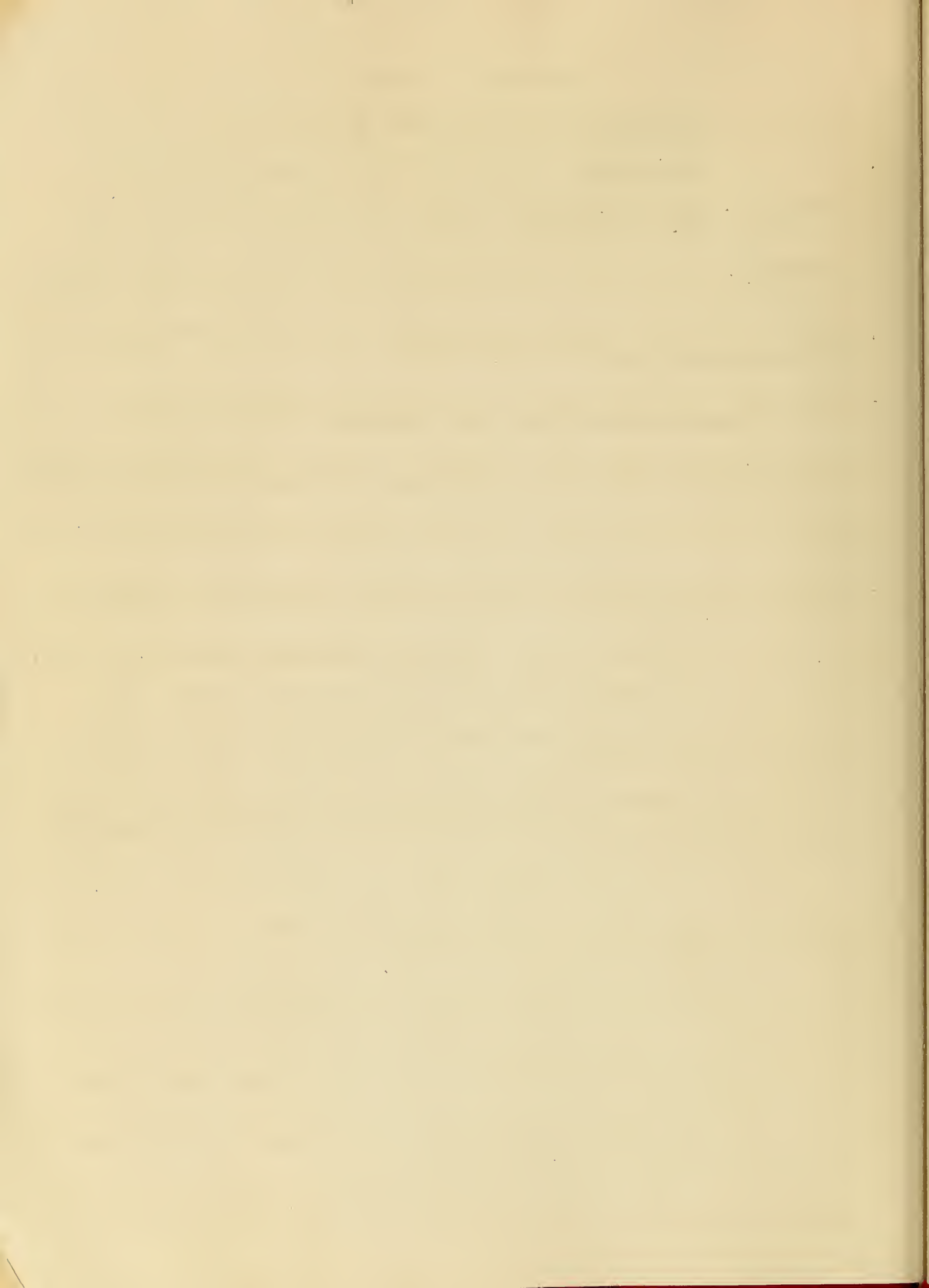
18. Cowell, C.C. "An Abstract of a Study of Differentials in Junior High School Boys Based on the Observation of Physical Education Activities," Research Quarterly, VI, No. 4 (1939), 129-36.
19. Dearborn, N.H. "What Does Honesty Mean to Third and Fourth-Grade Children?" Journal of Educational Method, 6:205-212, 1927.
20. Dimock, H.S. "Some New Light on Adolescent Religion," Religious Education, 31:273-79, 1936.
21. Dudycha, G.J. "The Superstitious Beliefs of College Students," Journal of Abnormal and Social Psychology, 27:457-64, 1933.
22. Engle, E., and Shelesnyak, M. "First Menstruation and Subsequent Menstrual Cycles of Pubertal Girls," Human Biology, VI (1934), 431-53.
23. Fluhmann, C.F. "The Length of the Human Menstrual Cycle," American Journal of Obstetrics and Gynecology, XXVII (1934), 73-78.
24. Fraenkel, L. "Keimdrüse, Reifung, Ovulation," Handbuch der Normalen and Pathologischen Physiologie, Bd. 14, Erste Hälfte, Erster Teil. Berlin: Julius Springer, 1926.
25. Franklin, S.P. "Comprehension of the Sayings of Jesus," University of Iowa Studies in Character, 2:1-63, 1928.
26. Freeman, F.N. "Intellectual Growth of Children as Indicated by Repeated Tests," Psychological Monographs, Vol. 47, No. 2, Whole No. 212, 1936, pp. 22, 24.
27. Friesenhahn, H. "Investigations into Food Preferences and Food Avoidances Among School Children," Zeitschrift für Kinderforschung, 40:1-54, 1932.
28. Furfey, P.H. "Group Life of the Adolescent," Journal of Educational Sociology, 14:195-204, 1940.
29. Gates, G.S. "An Observational Study of Anger," Journal of Experimental Psychology, 9:325-36, 1926.
30. Gilliland, A. R. "The Attitudes of College Students Toward God and the Church," Journal of Social Psychology, 11:11-18, 1940.
31. Goldstein, M.S. "Changes in the Dimensions and Form of the Face and Head with Age," American Journal of Physical Anthropology, 22:37-90, 1936.
32. Goldstein, M.S. "Development of the Head in the Same Individuals," Human Biology, 10:197-219, 1939.
33. Greulich, W.W. "The Relation of the Developing Apocrine Sweat Glands to the Maturation of the Reproductive System in Children," Anatomical Record, LXVII (Supplement, No. 3, 1937), 21.
34. Greulich, W.W.; Dorfman, R.I.; Catchpole, H.R.; Solomon, C.I.; and Culotta, C.S. "Somatic and Endocrine Studies of Puberal and Adolescent Boys," Monographs of the Society for Research in Child Development, Vol. VII, No. 3, 1942. Pp. 85.

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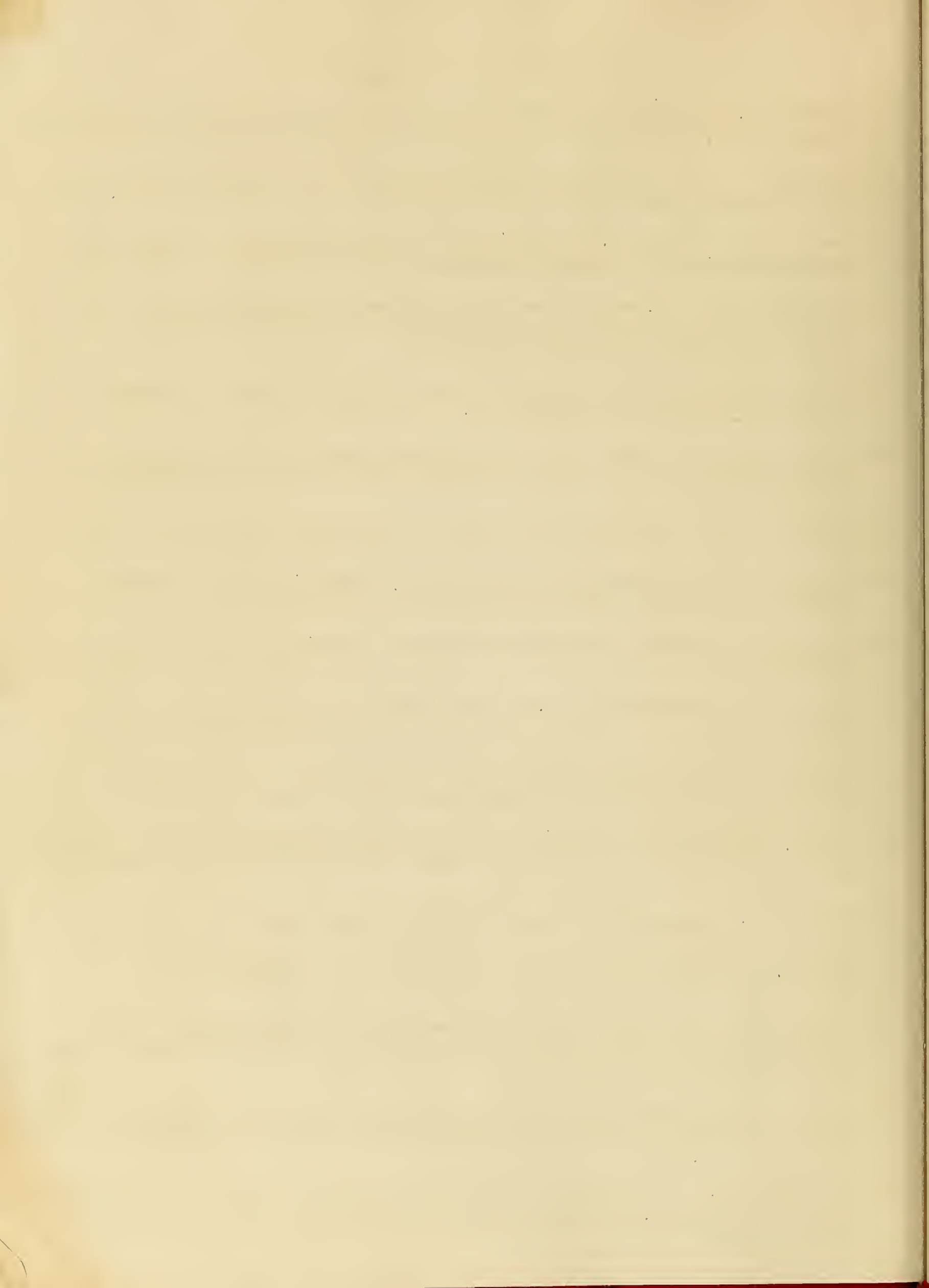
REFERENCES (Continued)

35. Gundolin, N. Besonderheiten der Kindesalters, Berlin, 1912.
36. Harris, J.A. The Measurement of Man, University of Minnesota Press, 1930.
37. Hartman, C.G. Time of Ovulation in Women. Baltimore, Maryland: Williams and Wilkins, 1936. Pp. x and 226.
38. Hartshorne, H., and May, M. Studies in Deceit, Vol. I, The Macmillan Company, 1928, 306 pp.
39. Hartson, L. "Does College Training Influence Test Intelligence?" Journal of Educational Psychology, XXVII (1936), 481-91.
40. Horton, B.J. "The Truthfulness of Boys and Girls in Public and Private Schools," Journal of Abnormal and Social Psychology, 31:398-405, 1937.
41. Howritz, W.A., and Harris, M.M. "A Study of a Case of Cyclic Psychic Disturbance Associated with Menstruation," American Journal of Psychiatry, 93:1401-11, 1937.
42. Hurlock, E.B., and Klein, E.R. "Adolescent Crushes," Child Development, 5:63-80, 1934.
43. Institute of Child Welfare, Berkeley, California. Development in Adolescence (Mimeo.). Vol. I, Ch. 2.
44. Jersild, A.T. "Children's Fears," Child Development Monographs, No. 20, 1935.
45. Johnson, B.E. "Adolescent Crushes," The Clearing House, 13:531-34, 1939.
46. Jones, H.E. "The Adolescent Growth Study," Journal of Consulting Psychology, III (1939), 157-59, 177-80.
47. Jones, V. "The Attitudes of College Students Toward War, Peace, and Religion, and the Change of Such Attitudes during Four Years of College," Psychological Bulletin, 33:731-32, 1936.
48. Katz, D., and Allport, F.H. Students' Attitudes, Craftsman Press, 1931, 408 pp.
49. Ke-Ching Chen "The Influence of Oral Propaganda Materials upon Student Attitudes," Archives of Psychology, No. 150, 1933, 43 pp.
50. Keen, A. "A Study of the Growth of Concepts and of Reasoning Concerning Physical and Psychological Causation," Ph. D. Thesis, University of California, Berkeley, 1934, 111 pp.
51. King, J.L. "Menstrual Intervals," American Journal of Obstetrics and Gynecology, XXV (1933), 533-87.
52. Knower, F.K. "Experimental Studies of Changes in Attitude," Journal of Abnormal and Social Psychology, 30:522-32, 1936.
53. Landis, F.H. "Points of Strain in Adolescent Morality," School and Society, 51:612-16, 1940.



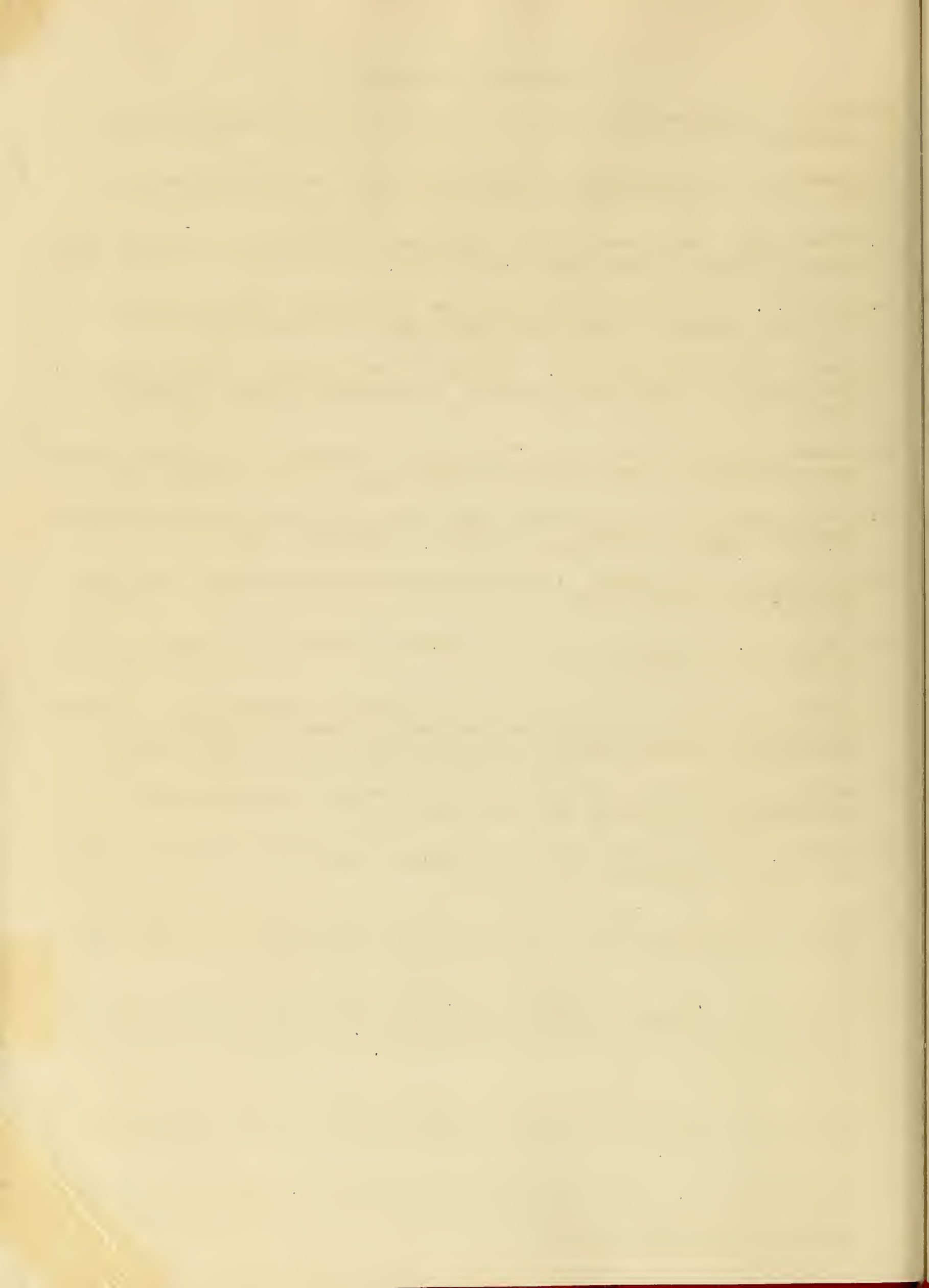
REFERENCES (Continued)

54. Lincoln, E.A. "The Stanford-Binet IQ Changes of Superior Children," School and Society, XLI (1935), 519-20.
55. Livesay, T.M. "Does Test Intelligence Increase at the College Level?" Journal of Educational Psychology, XXX (1939), 63-68.
56. Lunger, R., and Page, J.D. "The Worries of College Freshmen," Pedagogical Seminary and Journal of Genetic Psychology, 54:457-60, 1939.
57. McConnell, T.R. "Change in Scores on the Psychological Examination of the American Council on Education from Freshman to Senior Year," Journal of Educational Psychology, XXV (1934), 66-69.
58. MacLean, A.N. "Ideas of God in Protestant Religious Education," Teachers College Contributions to Education, No. 410, 1930, 150 pp.
59. McNemar, Q., and Terman, L.M. Sex Differences in Variational Tendency. Genetic Psychology Monographs, Vol. XVIII, No. 1. Worcester, Massachusetts: Clark University, 1936. Pp. 36.
60. Matthews, C.O. "The Honor System," Journal of Higher Education, 3:411-15, 1932.
61. Meek, L.H. The Personal-Social Development of Boys and Girls, Committee on Workshops, Progressive Education Association, 1938, 243 pp.
62. Meltzer, H. "Students' Adjustments in Anger," Journal of Social Psychology, 4:285-309, 1933.
63. Murphy, L.B. "Background of Adolescent Religion," Child Development, 13:140-44, 1936.
64. Nathanson, Ira T.; Towne, Lois E.; and Aub, Joseph C. "Normal Excretion of Sex Hormones in Childhood," Endocrinology, XXVIII (1941), 851-65.
65. National Society for the Study of Education. Adolescence. Forty-third Yearbook, Part I. Chicago, The Department of Education, The University of Chicago, 1944, 354 pp.
66. Neurath, R. die Pubertät, Vienna: Julius Springer, 1932.
67. Ogino, K. "Ovulationstermin und Konzeptionstermin," Zentralblatt für Gynäkologie, LIV (1930), 464-78.
68. Peatman, J.G., and Greenspan, I. "An Analysis of Results Obtained from a Questionnaire on Superstitious Beliefs of Elementary School Children," Journal of Abnormal and Social Psychology, 30:502-507, 1936.
69. Pennock, E.W. "Heart Rate and Blood Pressure as Measures of Physical Condition during Adolescence," American Physical Education Association Research Quarterly, 6:Sup. 120-25, 1935.
70. Peterson, A.B. "Food Habits of Sixth and Seventh Grade Pupils in Ten Elementary Schools," American Association of Health and Physical Education Quarterly, 9:75-80, 1938.



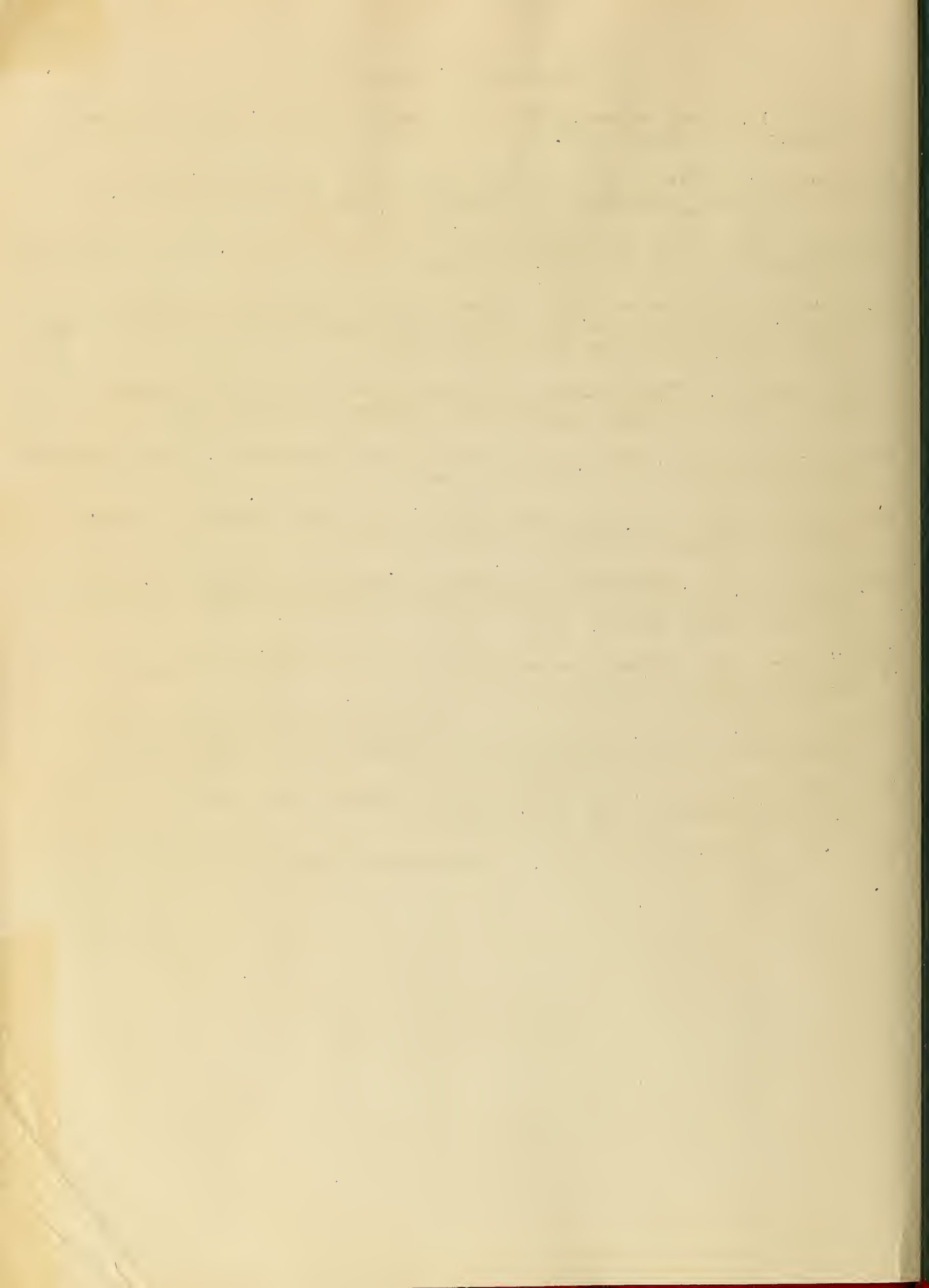
REFERENCES (Continued)

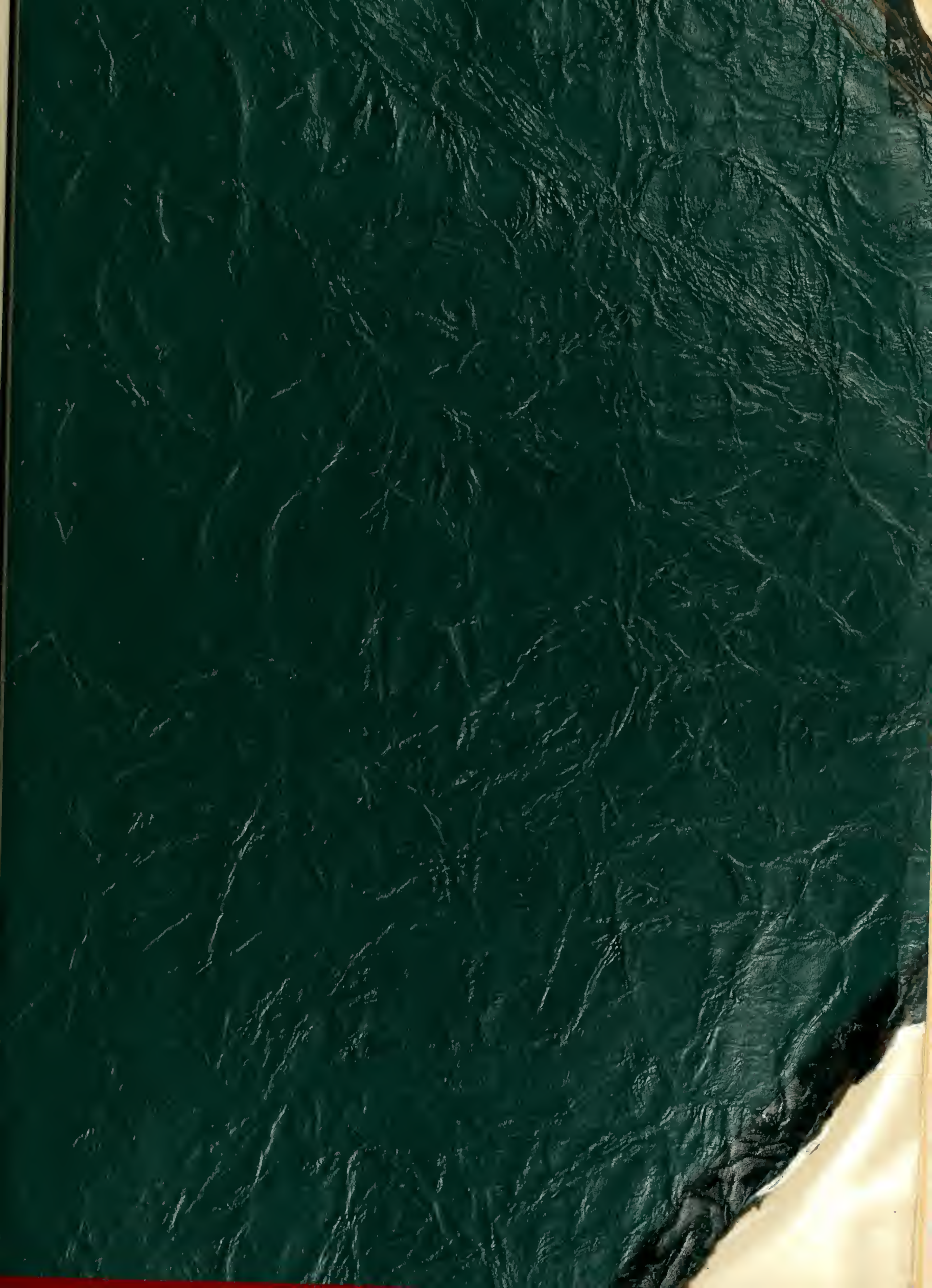
71. Pinter, R., and Lev, J. "Worries of School Children," Journal of General Psychology, 56:67-76, 1940.
72. Plant, J.S. Personality and the Culture Pattern. New York: Commonwealth Fund, 1937. Pp. x and 432.
73. Pressey, S.L., and Pressey, L.C. "Development of the Interest-Attitude Tests," Journal of Applied Psychology, 17:1-16, 1933.
74. Pyle, W.H. "An Experimental Study in the Development of Certain Aspects of Reasoning," Journal of Educational Psychology, 26:539-46, 1935.
75. Remmers, H.H., and Whisler, L. "Effects of the President's Speech on Pupils' Attitudes towards the Proposed Supreme Court Changes," School and Society, 46:64, 1936.
76. Remmers, H.H., and Whisler, L. "Effect of the Election on High School Pupils' Attitudes toward the Major Parties," School and Society, 45:558-60, 1937.
77. Richey, H.G. "The Blood Pressure in Boys and Girls before and after Puberty," American Journal of Diseases of Childhood, 42:1281-1330, 1931.
78. Rogers, A. L. "The Growth of Intelligence at the College Level," School and Society, XXXI (1930), 693-99.
79. Runner, J.R. "Social Distance in Adolescent Relationships," American Journal of Sociology, 43:428-39, 1937.
80. Schaeffer, R. "Über Beginn, Dauer und Erlöschen der Menstruation; statistische Mitteilungen über 10,500 Fälle aus der Gynäkologischen Poliklinik," Monatsschrift für Geburtschulfe und Gynaekologie, XXIII (1906), 169-91.
81. Shaffer, L. "Children's Interpretation of Cartoons," Teachers College Contributions to Education, No. 429, 1930, 70 pp.
82. Shock, N.W. Physiological Study of Adolescence, Institute of Child Welfare, University of California, 1936, 15 pp.
83. Shuttleworth, F.K. Sexual Maturation and the Physical Growth of Girls Age Six to Sixteen. Monographs of the Society for Research in Child Development, Vol. II, No. 5. Washington: National Research Council, 1937.
84. Shuttleworth, F.K. The Physical and Mental Growth of Girls and Boys Age Six to Nineteen in Relation to Age at Maximum Growth. Monographs of the Society for Research in Child Development, Vol. IV, No. 5. Washington: National Research Council, 1939.
85. Simmons, K., and Greulich, W.W. "Menarcheal Age and the Height, Weight, and Skeletal Age of Girls Age Seven to Seventeen Years," Journal of Pediatrics, XXII (1943), 518-48.
86. Sollenberger, R.T. "Some Relationships between the Urinary Excretion of Male Hormones by Maturing Boys and Their Expressed Interests and Attitudes," Journal of Psychology, 9:179-89, 1940.



REFERENCES (Continued)

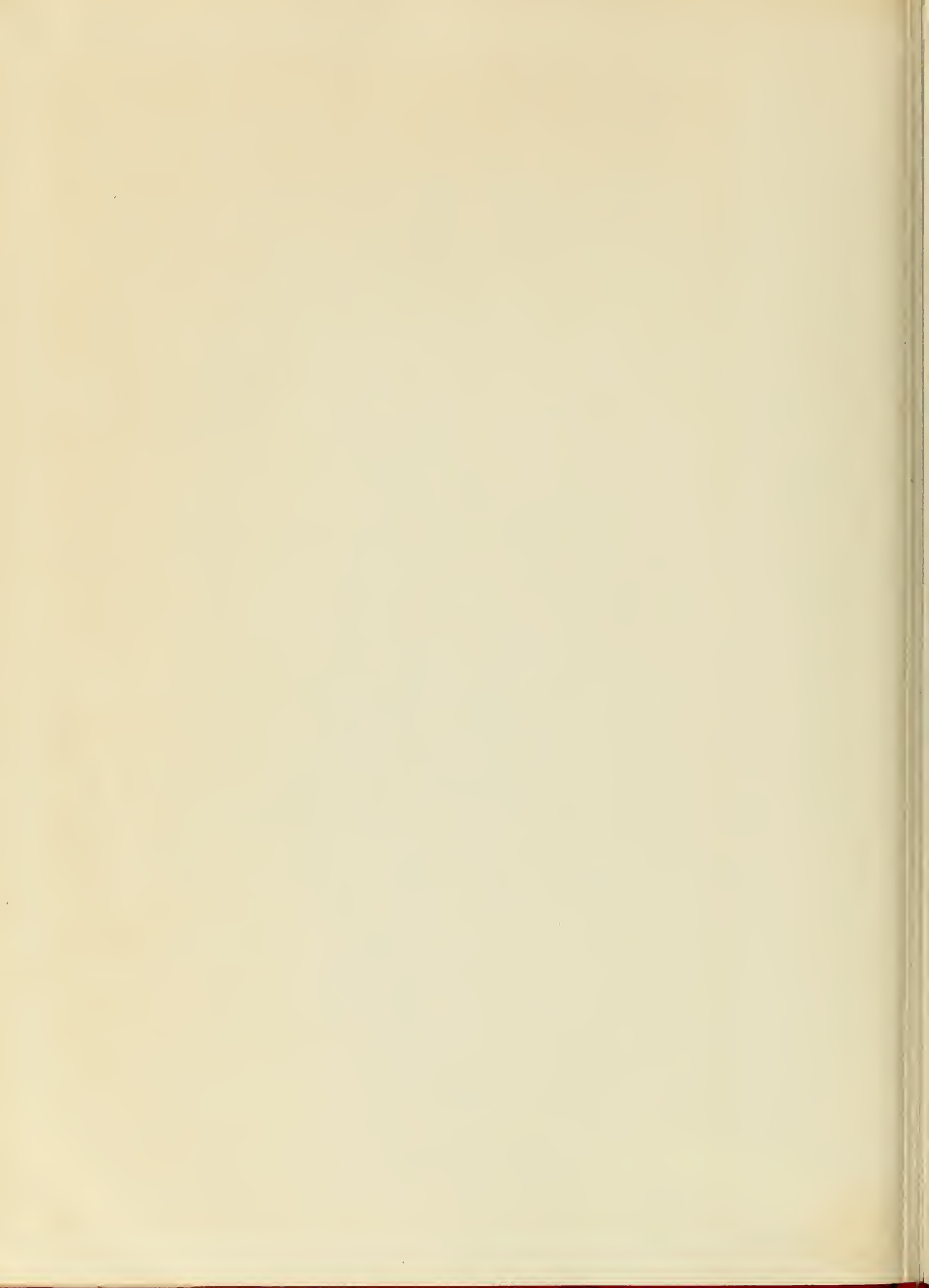
87. Stein, R.O. "Untersuchungen über die Ursache der Glatze," Weiner klinische Wochenschrift, I (1924), 6-10.
88. Stewart, C.A. "The Vital Capacity of the Lungs of Children in Health and Disease," American Journal of Diseases of Children, 24:454-55, 1922.
89. Stolz, H.R.; Jones, M.C.; Chaffey, J. "The Junior High School Age," University High School Journal, Vol. 2, No. 2, 1937.
90. Stone, C.P., and Barker, R.G. "Aspects of Personality and Intelligence in Postmenarcheal and Premenarcheal Girls of the Same Chronological Age," Journal of Comparative Psychology, XXIII (1937), 439-45.
91. Ter Keurst, J. "The Acceptance of Superstitious Beliefs among Secondary School Pupils," Journal of Educational Research, 32:673-685, 1939.
92. Thorndike, E.L.; Bregman, E.O.; Tilton, J.W.; and Woodyard, E. Adult Learning. New York: Macmillan Co., 1928. Pp. x and 335.
93. Topper, A., and Mulier, H. "Basal Metabolism of Normal Children," American Journal of Diseases of Children, 43:327-36, 1932.
94. Tryon, Caroline Evaluation of Adolescent Personality by Adolescents. Monographs of the Society for Research in Child Development, Vol. IV, No. 4. Washington: National Research Council, 1939.
95. Valentine, W.L. "Common Misconceptions of College Students," Journal of Applied Psychology, 20:633-658, 1936.
96. Wendler, A.J. "An Analytical Study of Strength Tests Using the Universal Dynamometer," Research Quarterly, VI, Supplement, No. 3 (1935), 81-85.
97. Zachry, C.B., and Lightly, M. Emotion and Conduct in Adolescence. New York: D. Appleton-Century, 1940. Pp. xv and 563.
98. Zelig, R. "Children's Worries," Sociology and Social Research, 24:22-32, 1939.













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